

Review Board for Government Contracts

REPORT
on
THE FOURTH GENERAL REVIEW
of
THE PROFIT FORMULA FOR
NON-COMPETITIVE GOVERNMENT CONTRACTS



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HER MAJESTY'S STATIONERY OFFICE



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The Rt. Hon. Peter Rees, Q.C., M.P.,
Chief Secretary,
H.M. Treasury,
Treasury Chambers,
Parliament Street,
London SW1P 3AG

25th January, 1984

Dear Chief Secretary,

I have pleasure in submitting the Review Board's Report on the Fourth General Review of the Profit Formula for Non-competitive Government Contracts, made in accordance with the terms of reference agreed between the Government and the Confederation of British Industry. I have sent a copy of the Report to the President of the C.B.I.

Yours sincerely,

JOHN GRENSIDE

Chairman

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SECTION I — INTRODUCTION AND TERMS OF REFERENCE

1. The Review Board for Government Contracts was established in accordance with the terms of a Memorandum of Agreement ("the 1968 Memorandum of Agreement") concluded in February 1968 between the Government and the Confederation of British Industry ("the C.B.I."), the latter representing the interests of contractors engaged in non-competitive Government contract work*. The 1968 Memorandum of Agreement followed agreement by Government and industry upon a revised basis for the pricing of non-competitive Government contracts ("the Profit Formula Agreement"). The texts of the Profit Formula Agreement and the 1968 Memorandum of Agreement, which include the Board's original terms of reference, are set out in Appendices A and B respectively. The key features of these agreements and their implementation to date are summarised in Section III of this report and some illustrations of the application of the profit formula are given in Appendix C.

2. This report embodies the result of the Board's fourth triennial general review. For this review, it was agreed that our terms of reference should be extended to embrace consideration of the following matters:—

"Having regard to the need to:

- remunerate non-competitive Government contracts on a basis which is fair to both Government and contractors
- maximise the incentive to efficiency and encourage technical competence in the performance of Government non-competitive contracts
- minimise consistent with propriety the administrative cost of the arrangements for remunerating non-competitive Government contracts
- ensure appropriate long-term security of U.K. supply of defence equipment, taking account of changing requirements and economic conditions

to review the present application of the arrangements established under the 1968 Agreement, considering in particular (without excluding any other relevant matters)

- the principle and practical application of comparability, including the extent to which the target rate of return of these contracts should reflect changes in economic factors and the rate of profitability of other sectors of British industry
- the appropriate definition of the rate of profit, including the accounting conventions relating thereto and the balance between remunerating capital and cost

*Non-competitive Government contracts are mainly for the purchase of defence equipment; their distinguishing feature is that there is often only one potential supplier for the equipment, or there are other reasons that make it impossible for the price to be regulated by competitive forces.

- the extent to which risk contracts should not only attract a higher rate of profit than non-risk contracts, but should differentiate if at all for varying degrees of risk
 - the obstacles to earlier pricing of various kinds of contracts
 - whether having regard to the purposes for which they were intended the post costing arrangements should be modified;
- to make recommendations”.

3. The foregoing extension of the Board's terms of reference has necessitated a wide-ranging and detailed examination of the basis and operation of the profit formula, with a view to making such recommendations as appear appropriate in the light of experience gained over the past 15 years.

4. Our recommendations are summarised in Section II. They have been reached after careful consideration of the very substantial body of evidence submitted to us. This includes submissions, oral and written, on behalf of Government and contractors. Extensive information has been supplied to us by the Ministry of Defence (“the MOD”), the department primarily concerned with non-competitive Government contracts. In the case of the contractors, our main channel of communication has been the Joint Review Board Advisory Committee (“the J.R.B.A.C.”), comprising representatives of the C.B.I. and those trade associations with particular interest in Government contracts. We also received a number of written submissions from individual contractors, trade associations and others.

Consideration has been given by the Board to all the many submissions and proposals which we have received even though they may not be the subject of particular mention or discussion in this report.

5. The Board has considered whether any lessons are to be learnt from the operation of defence contract systems in other countries. A comparative exercise of this kind was undertaken but it was found to be of limited value due to the differences between the environments within which the systems have to operate. These give rise to wide variances between one system and another, both as regards general approach and detailed mechanism. We consider it more useful to examine the efficacy of the British system as it operates in the environment for which it is designed.

6. In addition to the extended review of the basis and operation of the profit formula we have, as required by the Profit Formula Agreement, considered the results of contractors' operations as reported to us in their Annual Returns. These Annual Returns cover the years 1979-81 and we report on them in Section X.

7. The topics dealt with in this report have been grouped, for convenience, into the following sections:—

- I—Introduction and Terms of Reference
- II—General Considerations and Summary of Recommendations
- III—The Two 1968 Agreements
- IV—The Measurement of Capital Employed
- V—The Target Rate of Return

- VI—The Structure of the Profit Formula
- VII—Incentives to Efficiency
- VIII—The Accounting Conventions for Non-competitive Government Contracts
- IX—Miscellaneous Matters
- X—Profits on Non-competitive Government Contracts 1979-81

SECTION II—GENERAL CONSIDERATIONS AND SUMMARY OF RECOMMENDATIONS

General Considerations

8. By way of background to our present report we begin by repeating a general observation which we made in paragraph 19 of the report on the first review of the profit formula in 1974.

"In our view the primary objective of all involved with policy-making in the area with which we are concerned in this report should be the encouragement of an efficient industry, capable of giving value for money. This is in the interests of the contractors who have to obtain a large part of their business in competitive export markets. It is also undoubtedly in the interests of the Government since, as the customer, their aim must be to obtain a high quality product at the right time and at a reasonable price. The division of that price between cost and profit on any particular contract does not necessarily provide the criterion of reasonableness; a low profit does not mean that a price is reasonable any more than a high profit means that it is unreasonable. This is not to say that the Government should be indifferent as to the level of contractors' profits, but excessive concentration on limitation of profits, as against value for money, may well be against the Government's real interests".

9. The special review which on this occasion we have been directed to carry out called for a complete re-appraisal of the structure of the existing arrangements. This we have undertaken — and at some length. Although we have found it necessary to recommend a number of important changes, the essential framework has been retained.

10. It must be remembered that the arrangements cater for the defence industry as a whole. The profit formula has to be applied to a diverse group of contractors, ranging from the very large to the small. The nature and structure of their businesses vary widely. Some operate primarily in areas of high technology, while others are engaged in more traditional forms of manufacturing work. Some are capital-intensive, while others must compete for specialist human skills. Some are more reliant than others upon the Government work component in relation to the totality of their business activities. The profit formula has always been based upon a broad-brush approach, aimed at balancing, so far as possible, the varied needs and interests both of Government and of all those contractors who are engaged in non-competitive Government work.

11. A possible alternative would be to have a number of different formulae, each tailored to the needs of particular categories of contract or contractor. But such a solution would involve considerable problems both of definition and of administration.

Whilst acknowledging that adoption of the broad-brush approach is bound in certain individual cases to yield less than perfectly balanced results, neither the

Government nor the J.R.B.A.C. has advocated a shift away from that approach, and it is the approach which should in our view be continued for the present.

12. Our recommendations are as summarised below. The most important is that the formula be modified by adoption of a "semi-CCA" accounting basis*. It is also recommended that the target rate of return shall in future be subject to annual, instead of only triennial, review. This will enable corrections to be effected if there should be any significant deviation from certain bases and assumptions which have to be adopted in arriving at a recommended profit formula.

Summary of Recommendations

(a) CP/CE ratios

13. CP/CE ratios^o should be fixed for the most relevant units of contractors' businesses. The Board would be prepared, if need be, to consider suitable test cases which would establish the principles to be applied (paragraph 37).

(b) The profit formula

14. (a) The target rate of return in the profit formula should be 11 per cent on capital employed, expressed on a "semi-CCA" accounting basis (paragraph 77).

(b) The proportion of risk to non-risk work should be taken to be 1.75 to 1 (paragraph 81).

(c) The differential between the risk and non-risk rates should be approximately 30 per cent (paragraph 89).

(d) Capital employed and cost of production should be given equal weighting (paragraph 97).

(e) The average CP/CE ratio should be taken to be 2/1 on a semi-CCA basis (paragraph 100).

(f) The efficiency allowance on non-risk contracts should be discontinued (paragraph 105).

(g) The profit formula should thus be established, on a semi-CCA basis, as follows (paragraph 106):—

Risk work — 6 per cent on capital plus 3 per cent on cost; on the basis of the average CP/CE ratio of 2/1, this provides a return on capital employed of 12 per cent.

Non-risk work — 4.6 per cent on capital plus 2.3 per cent on cost; on the basis of the average CP/CE ratio of 2/1, this provides a return on capital employed of 9.2 per cent.

(h) Contractors whose CP/CE ratio (on a semi-CCA basis) exceeds 4/1 should receive fixed percentage rates of profit on cost of 4.5 per cent (risk) and 3.45 per cent (non-risk). The profit rate for a contractor whose CP/CE ratio (on a semi-CCA basis) is less than 1/1 should be subject to special negotiation (paragraph 110).

*The formula was originally, and has remained, historic cost-based. The semi-CCA basis utilises the historic figures for profit and capital employed as adjusted by inclusion of current cost-based depreciation and fixed asset values: see also paragraph 66 below.

^oThe CP/CE ratio is the ratio of cost of production to capital employed, used to convert the capital-based part of the profit formula into a percentage profit on cost.

(c) Future reviews

15. The operation of the profit formula should be subject in future to intermediate review at the end of the first and second year of each succeeding three-year period. Such intermediate reviews would normally be limited to examination of the target rate of return and the assumptions which have to be made regarding the average CP/CE ratio and the proportions of risk and non-risk contracts. However, the annual review proposed for the end of 1984 should also consider whether there is a significant difference between the capital requirements of Government and other contracts.

16. There should continue to be comprehensive triennial reviews at which the parties would be free to raise any issue, connected with the profit formula (paragraph 77).

(d) Incentives to efficiency

17. The outline arrangements for Cost Reduction Schemes* already devised by the recently established joint Working Party should be developed and implemented without delay. The Working Party has an important role; we recommend that it continues to explore other incentives to efficiency, particularly for non-risk contracts (paragraph 120).

(e) Research and development expenditure

18. Certain changes are recommended in the wording of the Guidance Document (paragraphs 135-142).

(f) The Accounting Conventions

19. We recommend a number of changes in the Accounting Conventions for non-competitive Government contracts, many of which have been accepted by the Government and the J.R.B.A.C. The proposed revisions are indicated in Appendix D. The principal proposed changes are as follows:—

(a) Revaluation of fixed assets should be permitted (paragraph 148).

(b) Capital employed should be net (presently gross) of Government grants (paragraph 155).

(c) A new Convention should be introduced defining cost of production (paragraphs 170 and 171).

(g) Flexible pricing arrangements

20. We consider that the introduction of a system establishing varying profit rates for risk work dependent on the time of price-fixing, as advocated by the Government, would present significant difficulties that would be likely to outweigh the benefits. We do however recommend that more extensive use be made of certain types of contract (principally hybrid and two-tier contracts) which have been developed to deal with cases in which it is, for some reason, impossible to determine at the outset that the contract should be priced on a risk basis (paragraphs 187-193).

(h) Post-costing

21. There should be no change in the present post-costing arrangements (paragraph 201).

*See Appendix F.

(i) Trigger points

22. The normal trigger points for reference of individual contracts to the Board should be established on the basis of a 10 per cent variance between estimated and outturn costs (paragraph 207).

Implementation of our Recommendations

23. The effective date for implementation of the recommended changes in the profit formula, the Accounting Conventions and the trigger points is a matter for agreement between the Government and the C.B.I. The Board's recommendation is that the effective date be as soon as possible.

In accordance with paragraph 14 of the Profit Formula Agreement, the revised arrangements would then apply to:—

- (a) risk contracts where no price arrangement has been agreed by the effective date, and
- (b) non-risk work carried out after the effective date for which no arrangement for profit has been agreed by that date.

24. It may well be necessary for there to be transitional arrangements applying to some contractors for a period after the effective date. The purpose of such arrangements would be to allow time for the MOD and individual contractors to reach agreement upon revised overhead rates and CP/CE ratios reflecting the new Accounting Conventions, in those cases where the necessary information is not readily available. The details and duration of these transitional arrangements must be a further matter for agreement between the Government and the C.B.I. For so long as the existing, historic cost-based, Accounting Conventions continue to be applied in accordance with transitional arrangements, there will need to be a historic cost-based profit formula. We calculate that, for the average contractor, a target rate of return of 15.5 per cent on a historic cost basis is equivalent to the recommended semi-CCA target rate of 11 per cent. A suggested transitional profit formula based on a 15.5 per cent historic cost target rate is set out in Annex II to Appendix C.

SECTION III—THE TWO 1968 AGREEMENTS

The Profit Formula Agreement

25. When the new profit formula was introduced in 1968, by agreement between the Government and industry, its aim was stated as being “to give contractors a fair return on capital employed; that is to say, a return equal on average to the overall return earned by British industry”.

26. The salient features established in 1968 by the Profit Formula Agreement* can be summarised thus:—

- (a) The profit earned by Government contractors, expressed in the formula in terms of a target rate of return on capital employed, should be comparable with the overall return earned by British industry.
- (b) Three important safeguards were incorporated as follows:—
 - (i) the right to equality of information;
 - (ii) the right of the Government to examine the outcome of individual contracts by means of post-costing investigations;
 - (iii) the right to refer the outcome of a particular contract for decision by the Review Board in a situation where it was claimed, on the Government's part, that the profit earned was excessive or, on the contractor's part, that he had incurred an unconscionable loss.
- (c) The operation of the formula should be examined by the Review Board at three-yearly intervals; the Board should recommend whether any adjustment was required, either in the structure of the formula or in the target rate of return, to ensure that the formula remained in line with the aim expressed in the agreement.

27. Price-fixing negotiations and any subsequent post-costing of individual contracts are conducted on the basis of the Accounting Conventions. These provide general guidance as to the admissibility of overhead costs and the computation of capital employed. The text of the present Accounting Conventions will be found in Appendix D.

28. The safeguards described in paragraph 26(b) were implemented by introduction of appropriate provisions in the Standard Conditions of Government Contracts for Stores Purchases (Form GC/Stores/1). The right to equality of information, providing for full and frank disclosure between the parties of all relevant information at the time the contract price is fixed, was embodied in Standard Condition 43. The right of the Government to post-cost individual contracts was embodied in Standard Condition 48, and the right to refer individual contracts for decision of the Review Board in Standard Condition 50.

*Set out in Appendix A.

29. The obligations of the parties in relation to equality of information (paragraph 26 (b)(i) above) were crystallised in May 1976 and set out in a document entitled "Working Guidelines for the Pricing of Non-Competitive Risk Contracts" (usually referred to as "Defcon Guide No. 3"), the text of which was reproduced in Appendix B to our 1977 Report. The object of the document was to simplify and thus to accelerate the price-fixing process. The lateness of the stage of production at which contract prices were in many cases finally agreed is a matter about which the Board has expressed concern in its previous reviews.

30. The Profit Formula Agreement provides that the Government's right to post-cost (paragraph 26 (b)(ii) above) is to be exercised for the following purposes only:—

- (a) in pricing follow-on contracts, as an essential element in equality of information;
- (b) to enable the MOD to check the accuracy of their estimating procedures;
- (c) to provide the information for a selective scrutiny of the outcome of particular contracts so that reference may be made by either side of the Review Board.

The 1968 Memorandum of Agreement

31. This agreement* established the Review Board as an independent body charged with a twofold function as follows:—

- (a) to conduct triennial general reviews of the operation of the profit formula and to make such recommendations as may be considered necessary for revision of the profit formula rates for the succeeding three-year period;
- (b) to determine references submitted to it by the Government or the contractor where, in relation to a particular contract, it is claimed that there had been either an excessive profit or an unconscionable loss.

32. In the exercise of the first of those functions the Board has undertaken three previous general reviews, which were the subject of its 1974, 1977 and 1980 Reports. It had previously undertaken two interim reviews, in 1970 and 1971, dealing with certain preliminary matters which it was agreed merited attention in advance of the first general review. Each of the Board's reports was published by Her Majesty's Stationery Office.

33. In the exercise of the second of its functions the Board has to date dealt with seven references in all. A summary of the Board's activities will be found in Appendix E.

*Set out in Appendix B.

SECTION IV—THE MEASUREMENT OF CAPITAL EMPLOYED

34. The profit formula target rate of return is expressed as a return on capital employed. It is, however, generally not possible to identify to a particular Government contract all the elements of capital employed. There are also very great practical difficulties in separating the capital employed in a contractor's Government business generally from that employed in the rest of his operations. The approach in practice has been to derive the capital employed for each individual Government contract from the cost of production of that contract using the CP/CE ratio for the contractor's business as a whole (comprising both Government and non-Government work) or the CP/CE ratio for such a smaller business unit as may be agreed between the contractor and the MOD to be the relevant unit for this purpose.

35. Whether this practical approach produces a rate of return on Government work in line with the target rate of return depends on whether the capital employed on Government contracts bears the same relation to the cost of production as it does on non-Government work. In its 1969/70 Report, the Public Accounts Committee questioned in particular whether the working capital requirements of Government contracts might be lower than those of comparable non-Government contracts. If this was so, and if there were no offsetting factors elsewhere in the capital computation, then the return on capital earned on Government contracts could well be greater than planned. Following these comments, the Board undertook a detailed study and concluded in its 1974 Report that there was no evidence that the capital requirements of Government contracts were consistently lower than for non-Government work. The Board did, however, in the 1974 Report express concern as to whether the practice of calculating a CP/CE ratio for the totality of a business was the most satisfactory way of applying the profit formula to an individual contract. Whilst recognising that only rarely will it be practicable to calculate the ratio for individual contracts, the Board recommended that CP/CE ratios should be calculated for smaller and more relevant units within a contractor's overall operation. These recommendations were in principle accepted by the Government and the C.B.I.

36. It has to be said that since 1974 progress towards smaller and more relevant units has been slow. The Government agree that it will very seldom be possible to allocate capital on a contract by contract basis but believe that, were it not for resistance by some contractors, it should have been possible to progress considerably further along the route towards smaller and more relevant units. The J.R.B.A.C. argue that this would cause additional accountancy work out of proportion to the value of the results achieved. The Board agrees with the Government that this process should indeed go further. The MOD should, where they believe it appropriate, insist on contractors' co-operation and contractors should give it.

37. Disagreements may well arise between contractors and the MOD as to precisely what constitutes the relevant unit for the purpose of arriving at the CP/CE ratio. The Board would be ready to rule on a test case or cases which it considered suitable for the purpose of establishing general principles. The establishment of guidelines ought to facilitate the resolution of other similar disputes.

38. A substantial move towards smaller and more relevant units for calculating CP/CE ratios would not entirely overcome the problem of achieving a target rate of return if the capital requirements of Government work were markedly different from those of the non-Government work which that unit also undertakes. At a late stage in the present review the Government revived the 1969/70 misgivings of the Public Accounts Committee and put it to the Board that there were grounds for believing that the working capital requirements are lower for Government than for non-Government work. They suggested that there should be a compensatory reduction in the target rate of return. The Government's interpretation of the position was not supported by direct accounting evidence of the capital requirements of the two classes of work, and it was vigorously contested by the J.R.B.A.C., who produced further data and arguments to the contrary.

39. In the view of the Board the evidence so far presented is not such as to justify an adjustment to the profit formula or the target rate of return. In the course of the intermediate review envisaged for 1984 the Board proposes to seek additional evidence and invite further representations from the Government and the J.R.B.A.C. on this issue.



SECTION V—THE TARGET RATE OF RETURN

Introduction

40. The target rate of return in the profit formula now stands at 20 per cent on capital employed, calculated on an historic cost basis.

41. In reviewing the target rate of return, two of the four objectives in the Board's terms of reference are particularly relevant. We are required to have regard to the need to:—

- (a) remunerate non-competitive Government contracts on a basis which is fair to both Government and contractors, and
- (b) ensure appropriate long-term security of U.K. supply of defence equipment, taking account of changing requirements and economic conditions.

42. The practical realisation of these broad objectives is no easy matter. Fairness is a subjective concept which entails the reconciliation of conflicting claims and interests.

Long term security of supply cannot be guaranteed by a profit formula which is confined in its application to determine the reward which a contractor can expect to receive from his non-competitive Government work. Many U.K. defence contractors are not primarily engaged in or exclusively dependent on non-competitive Government work. A substantial part of their commercial activity (which may include the manufacture of products wholly unconnected with possible Government procurement needs) is directed to the export market and to meeting the demands of the domestic private sector. The conditions required to keep a firm in effective production and with the capability of technical advance in the long term must therefore depend upon a variety of economic factors, of which the level of profit earned on non-competitive Government work will not always be the most significant. A defence contractor who was in financial difficulties and who was regarded by the Government as an essential supplier would have to be supported otherwise than through the medium of a profit formula which is designed to cater for the industry as a whole; and we have been assured that in such a situation help of an appropriate kind would be forthcoming. This is not to say that the formula should give contractors anything less than a fair return for their efforts; contractors who undertake Government work should have the opportunity to earn an adequate reward for this part of their work.

43. The original yardstick for the target rate of return agreed in 1968 was derived from the average profit earned by U.K. manufacturing industry. However, this sector of the British economy has suffered a marked decline during the period since 1968, with the result that manufacturing represents a significantly smaller part of the British economy. Output in 1982 was 19% below the peak level reached in 1973. In relation to total Gross Domestic Product, manufacturing output fell between 1968 and 1981 from 32% to 23%. These

factors have influenced our view as to the identification of an appropriate reference group upon which to base the target rate of return under the profit formula.

44. The comparability principle was applied in 1968 by reference to the seven-year period 1960-66. A similar approach now would focus upon the years 1976-82. This period saw the U.K. economy struggling to absorb and adjust to unusually adverse conditions:

- the effect of oil price increases,
- the decline of several traditional sectors of industry,
- violent fluctuations in the rate of inflation, in interest rates and in international exchange rates, and
- historically very low, even negative, real rates of return on equity capital.

It would be unwise to take results yielded during the 1976-82 period as the basis for establishing a target rate of return appropriate to the mid-1980s when the climate is showing signs of improvement.

45. In the Profit Formula Agreement, the target rate was defined in terms of a return on capital employed on an historic cost basis. The period prior to 1968 was, however, one of relatively low inflation. Conditions during the subsequent years, and more particularly in most of the period since 1973, have been very different, and the Board has found it essential in previous reviews, when judging the fairness of the target rate, to look beyond historic costs to a real (i.e. inflation-adjusted) rate of return on capital. Notwithstanding that the rate of inflation is now greatly reduced, there is still a need to adopt a rate of return measured in real terms.

The Contentions of Government and Industry

46. We sought and obtained the views of both Government and industry on the question of whether (and, if so, how) the historic cost-based target rate of return, as presently constituted, needs to be changed in the light of the objectives of the present review. The approaches to this question adopted by the two sides were very different.

47. The view of the Government was that the principle of comparability is, and should remain, the decisive factor in determining the target rate; in the absence of competition, fair pricing can best be achieved by determining a target rate by reference to the results achieved by analogous companies operating in a competitive environment. Concern was expressed that, if over a long period the target rate for Government work were to be significantly different from that earned on other work, companies would tend to direct resources either towards or away from Government work, with consequential effects both on the efficient use of resources in the economy as a whole and on the efficient production of defence equipment.

48. In the Government's view, however, some modifications of the means by which the comparability principle was applied in 1968 are now necessary in order to secure greater accuracy of comparison. The reference group for that purpose should be narrowed to comprise only those companies whose activities compare closely with those of defence contractors. The Government also proposed that, in order to achieve a more relevant measure of the return on capital employed, the historic cost basis should be modified to provide for revaluation of fixed assets and depreciation.

49. The Government have drawn our attention, in particular, to the Sixteenth

Report (Session 1981-82) of the Public Accounts Committee. In paragraph 39 of their report, the Committee said this: "The principle of comparability has previously been firmly endorsed by the PAC and is well worth fighting for on its merits. In our view it is fundamental in one form or another to satisfactory price fixing arrangements and is an essential safeguard to ensure that defence contractors receive fair, but not excessive, profits." Our attention was also directed to paragraph 56 of the Report, where the Committee say: "Finally, it remains our view that any steps accepted as necessary to maintain the viability of the defence industry should be taken outside the profit formula". However, as regards the viability of the defence industry it is to be noted that the need to ensure appropriate long-term security of U.K. supply of defence equipment is specifically stated by our terms of reference to be a matter to which we must have regard in this review.

50. The J.R.B.A.C. contend that the principle of comparability was not a fundamental tenet of the Profit Formula Agreement. The overall aim of the formula should be to give a fair return on capital employed. The view of contractors is that the best approach is to determine what is a fair and adequate rate of real, net of tax, return on equity capital. It was suggested that a figure of 8 per cent would be appropriate. It was further proposed that the formula should be restructured so that the following items would be built into contract prices:—

- (a) an economic rental charge in respect of land and buildings;
- (b) a CCA depreciation adjustment in respect of other fixed assets; and
- (c) an imputed interest charge calculated by reference to an individual contractor's capital employed (excluding land and buildings).

51. A minority of the J.R.B.A.C. membership (comprising a small number of major contractors), although supporting the proposed target rate of 8 per cent, expressed dissent from the last three proposals. They recommended that the present structure of the formula be largely preserved, except for a modification to give equal weighting to the cost and capital components.

Discussion

(a) Principles

52. The Board believes that the principle of comparability should continue to play a key role in determining the target rate of return. But it is not necessarily appropriate that the principle should be applied today in precisely the same way as it was in 1968. As was recommended by the Board in earlier reports, the rate indicated by application of the comparability principle requires reappraisal in the interests of appropriate long-term security of U.K. supply of defence equipment. In the Board's judgment the following further modification of approach is called for:—

- (a) It is inappropriate now to make comparison with a reference group confined exclusively to manufacturing industry, which since 1968 has declined significantly in importance as an element in the U.K. economy. The Board believes that a more comprehensive reference group is necessary. At the same time, it is necessary to take account of any relevant differences between the characteristics of non-competitive Government contractors and those of the generality of U.K. companies.
- (b) It is necessary to define the rate of return that is used as a measure of profitability in a way that takes account of inflation.

- (c) Account should be taken of the most up-to-date evidence on profits.
- (d) The target rate of return should be subject in future to annual, rather than triennial, review so that changes in economic circumstances may more quickly be taken into account.

53. It will be apparent from the foregoing that the Board considers that the determination of a fair target rate of return by reference to the comparability principle should not be a mechanical matter. The exercise of judgment is called for in a number of areas — for example in relation to the choice of reference group, the measurement of profitability, the allowance to be made for the distinctive features of Government contracts, the impact of current trends, and the long-term needs of the defence industry.

(b) The reference group

54. We have examined the various available sources of information on the profitability of U.K. companies. Amongst these are the two published official series of statistics, based respectively on National Accounts sample data and on the Department of Trade and Industry's summary of companies' accounts. We have concluded however that neither of these sources of information is suitable to be used as the basis for deriving the target rate of return in the profit formula. As regards the rates of return calculated from National Accounts data, these are not based on companies' accounts and they reflect accounting principles significantly different from those on which it is proposed that the pricing of Government contracts should be based. Moreover, the published statistics have in recent years been subject to substantial retrospective revision, which much diminishes the usefulness of this source of information for our purposes. The Department of Trade and Industry's statistics have the advantage of being based on companies' statutory accounts and are thus nearer to the Accounting Conventions. However, companies' accounts do not reflect a consistent basis of valuation of fixed assets, being primarily on an historic cost basis but incorporating, to an unquantifiable extent, the revaluation of some fixed assets. Furthermore, the latest year for which complete statistics are available from this source is 1979.

55. Having regard to the need to base the target rate of return on a real, inflation-adjusted, rate of return, calculated in accordance with the Accounting Conventions, the Board believes that the most relevant source of information currently available is the published accounts of companies, compiled on a CCA basis. CCA accounts have been prepared in considerable numbers for the last two years; the information in them is reasonably up-to-date and not subject to retrospective revision. (We have not overlooked that SSAP 16 — the accounting standard which embodies the principles of CCA — is currently under review. It is quite possible that future reviews of the profit formula will be conducted against a rather different background — one in which CCA accounts in their present form will no longer be available. This is a problem which the Board will have to face if and when it arises. Our hope is that any new accounting standard which takes the place of SSAP 16 will secure the continued availability of the information necessary to calculate a real rate of return on capital employed.)

56. The Board has been provided by the Bank of England* with summaries of companies' CCA accounts, prepared to our specification from original analyses by Datastream International Limited. The statistics thus collected by the Board cover all those U.K. listed companies, together with the largest unlisted companies which have published accounts on a CCA basis. All sectors of industry and commerce have been included with the exception of the following:— the banking, insurance, investment trust, mining, oil, rubber and tea sectors; companies controlled by overseas parent companies; and those controlled by the U.K. Government.

57. The reference group constructed in this way comprises 930 companies in 1982, with a total capital employed of approximately £100 billion. The Board is satisfied that this is a sufficiently large and broadly-based group.

58. The weighted average real rates of return on capital employed^o, calculated on a CCA basis, of the reference group in 1981 and 1982 were as follows:

*Reference Group Returns on Capital Employed
(CCA Basis)*

1981	7.1 per cent
1982	7.9 per cent

With the exception of one particular matter (which we identify in paragraph 66 below), these rates of return are calculated on an accounting basis approximating as closely as possible to that of the Accounting Conventions used in contract pricing. Precise application of the Accounting Conventions to the reference group is impossible, because some of the adjustments made by the MOD to the costs and capital employed of contractors pursuant to the Accounting Conventions involve judgments based on individual circumstances. Having carefully examined the possible areas of difference in accounting treatment, some of which might tend to increase the reference group rate of return and some to diminish it, the Board is satisfied that the overall effect is likely to be so minor that it can be ignored.

(c) Profitability in 1983

59. It is important, in our view, to take account of evidence of companies' profits since 1982. This is particularly so on the occasion of this review, since the indications are that the profitability of British industry reached a low point in 1981, after several years of decline, and that the modest recovery that is suggested by the 1982 average rate continued, and indeed gained strength, in 1983.

60. We have therefore examined the latest information available to us. The evidence from Government and other sources suggests that real rates of return

*We are much indebted to the Bank of England for their assistance in this aspect of the review.

^oCurrent cost operating profit (before interest, gearing adjustment and taxation) as a percentage of average CCA capital employed.

on capital in 1983 will be shown to have been some 15 per cent to 20 per cent above the 1982 level. We have also examined the 1983 interim profit announcements of the companies in our reference group; these are consistent with this estimated trend. These indications suggest that the real rate of return on capital of the reference group in 1983 is likely to be some 1 to 1.5 percentage points higher than the 1982 rate, indicating a rate of return on a CCA basis of between 9 per cent and 9.5 per cent.

61. The J.R.B.A.C. would go further and take into account an extrapolation of trends in profitability to 1984. Whilst we have some sympathy with this view, experience shows that such profitability forecasts are subject to considerable uncertainty. Having regard to our recommendation (see paragraph 77) that the target rate should in future be reviewed on an annual basis, we have concluded on balance that the soundest basis for review is provided by taking account of the latest evidence of profitability achieved up to the date of each review, without attempting to forecast into the future.

(d) Allowance for distinctive features of non-competitive contracts

62. The Board has to consider whether there are any distinctive characteristics of non-competitive Government work which should be taken into account. A particular factor to which consideration should be given is the relative degree of risk. However, this is not a clear-cut issue. On the one hand, many Government contractors operate in areas of high technology and are subject to the greater risks inherent in innovation and change. On the other hand, the relative security of the work and the method of pricing employed are factors which tend to diminish the risks. On balance, the Board's judgment is that the risks entailed in non-competitive Government work are, in general, slightly less than those to which most U.K. companies are exposed, and that this is a matter which should be recognised by a small reduction in arriving at the target rate of return. This is reflected in our recommended rate.

63. The Government urged that the question of relative efficiency, as between Government contractors and industry generally, should also be taken into account. The Government's view is that the level of cost effectiveness on non-competitive Governments contracts is below that achieved in the competitive market place. Whilst this comment may be valid in relation to some individual cases, we have no evidence to indicate that this is a widespread malaise. Moreover, it is not in our view a matter for which regard could properly be had when determining the overall target rate of profit. The effect of any adjustment of the formula on that account would be to penalise the efficient contractor without any guarantee that it would act as a spur to the inefficient contractor. If it is perceived that a contractor's performance is unsatisfactory it must be for the MOD to take whatever action is considered appropriate.

64. We have already in Section IV considered the Government's proposal that there should be a reduction in the target rate of return to compensate for a suggested bias derived from the present method of measuring capital employed. The Board does not believe that adequate evidence has been produced to support this claim. The issue should be reconsidered in the proposed 1984 intermediate review.

(e) The impact of inflation on working capital

65. The matters thus far considered would lead the Board to adopt, as the basis for the profit formula target rate, a rate of return on capital of between 8.5 and 9 per cent calculated on a CCA basis.

66. For a CCA target rate of this order to be achieved, however, the profit rates in the formula must be set at a somewhat higher level — for a reason which we now explain.

We recommend in Section VIII of this report that the Accounting Conventions should be changed so as to allow for the revaluation of companies' fixed assets and depreciation charges; so the adjustments to contractors' costs and capital employed to reflect fixed asset revaluations will be built into contract costs and prices. But it is common ground that it is not practicable at this stage to include in contract costs the two CCA cost adjustments for working capital, namely the Cost of Sales Adjustment and the Monetary Working Capital Adjustment ("COSA" and "MWCA"). Adjustment of the target rate is necessary to include an allowance for these elements of cost.

67. In order to arrive at the necessary average allowance for COSA and MWCA, regard must be had to two principal factors:—

(a) The asset structure of Government contractors:

an analysis of the capital employed by major Government contractors indicates that the working capital for the purpose of the COSA and MWCA calculation represents on average approximately 45 per cent of total capital employed on a semi-CCA basis.

(b) The rate of inflation:

the most recently reported annual rate is just over 5 per cent; we think it would be reasonable to make the calculation on the basis of an inflation rate of 5 per cent.

These two factors taken together indicate that, in order to make an appropriate allowance for COSA and MWCA, an increment of, say, 2.25 percentage points* should be added to the rate of return of between 8.5 per cent and 9 per cent in paragraph 65. The profit formula on what we have described as the semi-CCA basis should therefore be constructed around a target rate of return of between 10.75 per cent and 11.25 per cent, say 11 per cent.

68. Exploring an alternative approach to the allowance for COSA and MWCA, the Board has converted the average rates of return of the reference group in 1981 and 1982 onto a semi-CCA basis. The average rates of return so converted are as follows:—

*Reference Group Returns on Capital Employed
(Semi-CCA basis)*

1981	9.7 per cent
1982	9.9 per cent

*5 per cent of 45 per cent equals 2.25 per cent.

If we then adjust the 1982 semi-CCA rate of 9.9 per cent in the same way as we adjusted the 1982 CCA rate, that is for the trend of profitability in 1983 (paragraphs 59 and 60) and for the risk differential (paragraph 62), we come to a semi-CCA target rate of return of 11.1 per cent, almost the same as the 11 per cent arrived at in paragraph 67.

(f) The objectives of fairness and long-term security of supply

69. Lastly it has to be considered whether a profit formula target rate of 11 per cent on a semi-CCA basis has adequate regard to the need to provide remuneration on a basis which is fair to both Government and contractors, and to ensure appropriate long-term security of U.K. supply of defence equipment. In previous reviews we have tested this matter by estimating the rate of the real net return on equity which might follow from application of the profit formula target rate, and by judging whether the rate so estimated met the foregoing criteria.

70. The calculation of a real net return on equity requires assumptions to be made regarding the structure of the assets and capital of the average Government contractor; these we have based on the extensive information available to us from the contractors' Annual Returns. It is also necessary to assume a rate of inflation and to estimate both the average rate of interest that contractors pay on their borrowings and the effective rate of tax payable on profits. We have assumed a rate of inflation of 5 per cent, an interest rate of 11 per cent (based on a mix of fixed-rate and variable-rate borrowings) and an effective tax rate of between 25 per cent and 30 per cent.

These assumptions and estimates must inevitably be subject to some degree of uncertainty. However, on the basis of the foregoing assumptions, we estimate that a profit formula target rate of 11 per cent on a semi-CCA basis would yield the average Government contractor a real net return on equity of approximately 6 per cent assuming a 25 per cent tax rate, and 5.4 per cent assuming a 30 per cent tax rate.

71. What constitutes, at any given time, an appropriate real rate of return on equity is inevitably a matter of judgment. In the Board's judgment, a real net return on equity of the order of 5½ to 6 per cent is one which, as matters presently stand, constitutes a basis for remuneration of non-competitive Government work which is fair to both Government and contractors.

72. Our terms of reference also require that we have regard to long term security of supply. We have already referred in paragraph 42 to the limitations in the role that the profit formula is capable of playing in ensuring the viability of the defence industry. Subject to those comments, a rate of return of the above order would not in our view constitute any immediate threat, but whether it would constitute an adequate rate were it to prevail in the long term is indeed a difficult question. The situation will need to be kept under review. Our recommendation that the target rate of return be subject in future to annual review would, if the need should arise, enable corrective measures to be adopted more rapidly than has hitherto been the case.

Future Reviews

73. The operation of the profit formula has hitherto been reviewed every three

years. The relatively long interval between reviews can have the consequence that the formula is slow to respond to changes in economic conditions. The assumptions and bases of the formula, adopted at the time of one review, may well require revision earlier than the next triennial review date.

74. An example of the kind of problem that may arise is provided by the events that have occurred since the Board's 1980 Report. The Board's recommendation in 1980 that the 20 per cent target rate of return should be retained was based on calculations in which a 15 per cent rate of inflation was assumed. At the time when the Report was prepared, the actual rate of inflation was of the order of 20 per cent and the latest official forecast was 15 per cent. In the event, the rate of inflation has fallen dramatically in the years since 1980. The recommendation in the 1980 Report was seen by the Board as being of the nature of a holding operation: the Board envisaged that the profit formula would be reviewed again earlier than the normal triennial review date of 1983. Events since 1980 have in fact taken a different course, and the profit formula recommended in 1980 has remained operative for more than a full three-year term.

75. We consider that the operation of the profit formula should in future be subject to intermediate review on an annual basis. Such reviews would normally be limited to examination of the target rate of return (including the latest information on the profitability of the reference group, on interest rates and on the rate of inflation) and of the assumptions which have to be made regarding the average CP/CE ratio and the proportions of risk and non-risk contracts. This annual examination of critical data should help to obviate a recurrence of the situation that has arisen since the Board's 1980 Report.

In the review which we propose be carried out at the end of 1984 we would wish to deal also with the question of capital employed to which we have referred in paragraphs 38 and 39 above.

76. There should continue to be comprehensive triennial reviews at which any issues connected with the profit formula could be raised. These reviews would continue to include consideration of returns from contractors of their results on non-competitive Government work.

Recommendations

77. Our recommendations on the target rate of return and future reviews of the profit formula are as follows:—

(i) **Target rate**

The target rate of return in the profit formula should be 11 per cent on capital employed, expressed on a semi-CCA basis.

(ii) **Future reviews**

The profit formula should in future be subject to limited intermediate review on an annual basis. There should continue to be comprehensive triennial reviews.

SECTION VI—THE STRUCTURE OF THE PROFIT FORMULA

Risk and Non-risk Profit Rates

78. The current profit formula is based upon the principle that risk contracts should have a higher profit rate than non-risk contracts and that the average of the two rates, weighted by the total value of contracts of each type, should equal the overall target rate.

To maintain a proper balance between the returns on risk and non-risk work, it is necessary to consider whether adjustment is required to two elements in the formula, i.e. the assumed proportions of risk and non-risk work and the differential between the risk and non-risk profit rates.

(a) The proportions of risk and non-risk work

79. Following our 1977 Report the profit formula has been based upon an assumed mix of three-fifths risk work to two-fifths non-risk work (1.5 to 1). Prior to that the assumed mix had been two-thirds to one-third (2 to 1). The information presently available to us from MOD statistics is that the values of contracts and amendments placed in the years 1979-83 were as follows:—

	<i>Non-Competitive Government Contracts Placed</i>				
	<i>Year to 31st March</i>				
	1979	1980	1981	1982	1983
	£m	£m	£m	£m	£m
Priced according to the formula:					
(a) Risk contracts	1,276*	2,648	1,583	1,888	2,922
(b) Non-risk contracts	1,081*	1,400	1,053	1,014	1,404
	<u>2,357</u>	<u>4,048</u>	<u>2,636</u>	<u>2,902</u>	<u>4,326</u>
Priced outside the formula	580	956	563	639	1,065
Total non-competitive contracts	<u>2,937</u>	<u>5,004</u>	<u>3,199</u>	<u>3,541</u>	<u>5,391</u>
Proportion of risk to non-risk for contracts priced according to the formula	1.18 to 1	1.89 to 1	1.50 to 1	1.86 to 1	2.08 to 1

The average proportion of risk to non-risk work for the five years 1979-1983 was 1.73 to 1, as compared with the assumed mix in the profit formula of 1.5 to 1.

80. The J.R.B.A.C. put to us that the proportion of risk to non-risk work above was overstated. They had expected a proportion of the order of 1 to 1, which would be comparable with that to be found in the Annual Returns that we have received.

*The 1979 analysis between risk and non-risk contracts differs from that shown in our 1980 Report because "hybrid" contracts (see paragraph 188 (b)), which were previously included as risk, have now been apportioned between risk and non-risk using the information now available as to the average rate of conversion of hybrid contracts from a non-risk to a risk basis.

Two factors affect this result. The Annual Returns cover the work undertaken by contractors, whether as main contractor or sub-contractor, and there is a probable duplication of sub-contracts. More importantly, the MOD figures relate to all contracts and amendments placed, whereas the Annual Returns cover the work done by only a sample of contractors (albeit a very substantial sample). The MOD have told us that the bulk of their non-risk contracts are placed with the major contractors who have furnished Annual Returns. It is likely, therefore, that the work of the contractors not covered by Annual Returns lies predominantly in the risk area.

81. On present evidence we consider the MOD figures provide the better basis for structuring the profit formula.

We recommend that the assumed mix of risk and non-risk work should in future be taken to be in the proportion of 1.75 to 1.

(b) The differential between risk and non-risk rates

82. By way of preface to our consideration of this element in the formula, we think it desirable to stress that the use, in the context of non-competitive contracts, of the words "risk" and "non-risk" suggests a simple dichotomy which, in reality, does not exist. The degree of risk varies as between one contract and another, dependent upon the terms and the circumstances surrounding performance. Not all so-called non-risk contracts are likely to be wholly devoid of all risk; conversely, in a so-called risk contract, the contractor may to a substantial degree be insulated against risk — particularly so if the pricing is not achieved until the work is far advanced or even, in the extreme case, completed.

83. Although we have thought it desirable to adhere in this report to the nomenclature used in the Profit Formula Agreement, the reality is that non-competitive Government contracts cover a broad spectrum and the degree of hazard accepted by contractors in fact varies widely. It would we think be more appropriate if the broad division established by the Profit Formula Agreement were to be regarded as distinguishing between "higher risk" and "lower risk" types of contract.

84. The existing target profit rates for risk and non-risk work are 23 per cent and 16 per cent respectively, the differential of 7 percentage points being equal to 43.75 per cent of the non-risk rate.

The Government consider the present differential to be too narrow to reflect the difference in degree of risk between the two categories and propose that it should be considerably increased. They regard it as important that the differential should be substantial enough to encourage the use of risk contracts.

85. The J.R.B.A.C. would prefer to see the differential reduced, if not entirely eliminated. They are firmly opposed to any widening of the differential.

The J.R.B.A.C.'s case is that a differential is not necessary in order to induce contractors to undertake risk work. That inducement is already provided by factors that are outside the profit formula. The most important is that the contractor who undertakes work on a risk basis does so in the knowledge that if, during performance of the contract, he can attain a level of efficiency above that reasonably assumed for pricing purposes (and thereby beat the target set by a

fairly negotiated contract price), he will keep the benefit of that special effort. Furthermore, the J.R.B.A.C. told us that contractors generally prefer to operate in an environment that is conducive to achievement of efficiency in their overall business: commitment to risk work helps to foster that environment, whereas non-risk work does not. Risk work carries with it another important practical attraction. It avoids the administrative burden which derives from the closer monitoring of non-risk contracts upon which the MOD quite properly insists.

86. Whilst recognising that other factors may operate as a strong encouragement to the use of risk contracts, we consider that the presence of a differential is likely to have contributed to the welcome increase in the proportion of risk work undertaken in recent years. We do not consider therefore that the case for abolition of the differential has been made out. Nor, however, are we persuaded that it would be appropriate to increase the differential, as the Government have proposed. We are not satisfied that such increase would materially strengthen the incentive to undertake work on a risk basis.

87. Moreover, widening of the differential (which, it has to be remembered, must involve lowering the target rate for non-risk contracts) could well operate unfairly on those contractors who are largely engaged in non-risk work. Contractors whose work is, of necessity and by its nature, largely made up of non-risk contracts still need the opportunity to earn a reasonable commercial rate of return on their capital in real terms: although they may be insulated from risk of loss on their individual contracts their invested capital cannot be regarded as risk-free.

88. It remains to consider whether there is a case for some narrowing of the differential.

On balance, we have come to the conclusion that there is scope for a modest adjustment to reflect our acceptance of the points emphasised by the J.R.B.A.C. — on the one hand that the differential provides by no means the most important encouragement to acceptance of risk work, and on the other hand that contractors engaged predominantly in non-risk work need to make an adequate return.

89. We consider that a fair balance would be struck if the differential were to be set in future at about 30 per cent, and that is our recommendation. We believe that this adjustment will not discourage contractors from accepting work on a risk basis. But if in the future the present trend towards an increase in the volume of risk work were to be reversed we would wish to re-examine the position.

Variable Profit Rates

90. The Government proposed that the rate of profit to apply to a contract should depend upon the stage at which the price is finally agreed. The full risk rate would apply to a contract priced at an early stage but would progressively reduce as time elapsed.

This proposal has been raised in the past. It has been consistently opposed by the J.R.B.A.C. on the grounds that it conflicts with one of the basic tenets of the

Profit Formula Agreement (namely that contracts be identified at the outset as being either risk or non-risk in character); that the introduction of any such sliding-scale arrangement would be administratively impracticable; and that it would tend to operate unfairly against contractors.

91. In the Board's view the introduction of such a mechanism would give rise to undue complication of the pricing process, and it could indeed be counter-productive. In particular, unless the mechanism were to be automatic, so that no regard was paid to where the blame for delay might lie (with consequences that could be manifestly unfair), it would require the establishment of some form of machinery to resolve where the fault did lie — a question which might be difficult to determine and which could well result in a need to apportion responsibility when it was shown that there was fault on both sides. It would on any view result in additional administrative cost.

There have already been evolved within the framework of the existing arrangements ways and means of dealing with situations in which there is a genuine need for greater flexibility: these are described in Section IX. So far as pricing delays are concerned, the remedy lies in identifying and reducing the obstacles to earlier pricing, another matter which we address in Section IX.

92. We are accordingly unable to recommend adoption of the Government's proposals for the introduction of variable profit rates.

The Weighting of Cost and Capital

93. Although the target rates of return in the profit formula are defined in terms of a return on capital employed, the formula is so structured that part of the profit is calculated as a percentage of cost. At present, approximately two-thirds of the profit earned is based upon capital employed and one-third on cost. The submissions received from the parties in this connection were diametrically opposed.

94. The majority of the J.R.B.A.C. membership would prefer to see practically the whole of the profit calculated as a percentage on cost. Their principal argument was that cost more directly reflects the risk element in the contract. Emphasis had shifted away from investment in conventional capital equipment towards competition for scarce resources of technical skills. A substantial shift in the weighting from capital to cost would operate more fairly and would better accommodate the wide variety of conditions under which contractors presently operate.

Some contractors (few in number but accounting collectively for a substantial proportion of Government work) favoured equal weighting on capital and cost.

95. The Government, on the other hand, argued that the profit formula should be expressed entirely as a return on capital; the formula as presently structured results in firms with different CP/CE ratios receiving different rates of return on capital for performing the same contract at the same costs. In their view the element in the present profit formula expressed as a percentage on cost should be eliminated.

96. In the Board's judgment the J.R.B.A.C. arguments do indeed justify some

reduction in the capital weighting in the formula. A fair balance would now, we believe, be achieved by giving an approximately equal weighting to cost and capital. The situation should be reviewed in the next triennial review.

97. Our recommendation is, therefore, that the capital weighting in the formula should be reduced so that capital and costs are given equal weighting for both risk and non-risk work.

The Average CP/CE Ratio

98. The next element in the structure of the profit formula which has to be examined is the average CP/CE ratio, which is used to convert part of the formula profit from a capital base to a cost base. The average ratio assumed for that purpose in the current (historic cost-based) formula is 2.25/1.

99. The latest statistics provided to us by the MOD are as follows:—

	<i>Weighted Average CP/CE Ratio</i>
1978	2.28/1
1979	2.48/1
1980	2.76/1
1981	2.62/1

100. The statistics cited in the preceding paragraph are based on historic cost. Account must now be taken of our recommendation that the target rate of return in the formula should in future be calculated on a semi-CCA basis. A re-working onto a semi-CCA basis of the MOD figure for 1981 (2.62/1) would yield a revised CP/CE ratio of the order of 2/1, and that is the ratio which we recommend for the purpose of the new formula.

The Efficiency Allowance

101. The profit formula for non-risk contracts has always embodied a variable element (originally a maximum of 3 per cent on cost, raised between 1970 and 1977 to 4 per cent, then reduced back to 3 per cent). The amount awarded depends upon an assessment by the MOD of the contractor's efficiency in performance of the particular contract.

102. Although the Government have hitherto supported the efficiency allowance it has always been an irritant to contractors. On the part of industry there was, perhaps inevitably, a feeling that there must be a risk of inequity in a system which demanded the exercise of necessarily subjective judgments. Another criticism of the system was that the allowance awarded has tended to be fixed in a great many cases at the mid-point of the range.* Serious doubt has thus been cast upon the ability of the system to fulfil the 'stick and carrot' role which it was intended to play. Last, but by no means least, it has been found to involve considerable administrative effort and to be a not uncommon cause of delay in finalising payment for the work.

*For detailed statistics see paragraph 95 of our 1974 Report, paragraph 99 of our 1977 Report and paragraph 63 of our 1980 Report.

103. In the light of the past 15 years' experience both the Government and the J.R.B.A.C. are now agreed that this feature of the profit formula, admirable though it may have been in concept, has in practice caused more trouble than it is worth. They have accordingly requested its abolition.

104. The Board has, over the years, sought to encourage more effective use of the efficiency allowance. Whilst some measure of progress has been achieved, we are compelled to conclude that the efficiency allowance has proved to be an instrument of doubtful value.

105. In these circumstances, and having regard to the expressed wish of both Government and contractors, we consider it right to recommend that the efficiency allowance be discontinued and that the target rate for non-risk work should in future be based entirely upon fixed percentages on capital and cost. This is a recommendation which we make with some reluctance. In Section VII we deal with the problem of providing adequate incentives to efficiency; abolition of the efficiency allowance makes it the more important that, as we there recommend, Cost Reduction Schemes or other appropriate measures be devised to stimulate efficiency on non-risk work.

The Revised Profit Formula

(a) The basic formula

106. We therefore recommend that the profit formula be reconstituted on a semi-CCA basis as follows:—

(i) Risk work

6 per cent on capital employed, plus 3 per cent on cost; on the basis of the assumed average CP/CE ratio of 2/1, this produces a return on capital employed of 12 per cent.

(ii) Non-risk work

4.6 per cent on capital employed, plus 2.3 per cent on cost; on the basis of the assumed average CP/CE ratio of 2/1, this produces a return on capital employed of 9.2 per cent.

On the basis of the assumed proportion of risk to non-risk work of 1.75 to 1 (paragraph 81 above), the weighted average of the return of 12 per cent on risk work and 9.2 per cent on non-risk work is 11 per cent, corresponding with the recommended overall target rate of return. The differential between the recommended risk and non-risk rates is 30 per cent, in accordance with the recommendation in paragraph 89 above.

107. The effect of the proposed modifications upon the structure of the profit formula is shown in Annex II to Appendix C; Annex III shows the profit rates which would be obtainable under the proposed new formula for a variety of CP/CE ratios.

(b) Special provisions

108. In our 1980 Report* we noted a complaint of some individual contractors

*Paragraph 57.

with unusually high CP/CE ratios: they considered that they were disadvantaged in that the predominant weighting on capital in the formula gave such a low rate of profit on cost that even a minor misjudgment of the likely level of costs on a contract could have a disproportionate effect on the return on capital employed. We then noted that the MOD were prepared to negotiate adjustments in exceptional cases. During this current review the MOD told us of ad hoc arrangements which they have made in certain cases.

109. The recommended change in the weighting of cost and capital in the formula (see paragraph 97) will help to alleviate this problem. Nevertheless, we now consider it would be appropriate to build into the formula a fixed profit rate on cost for contractors who have a high CP/CE ratio and also to recommend that there be special provision to cover any contractor whose CP/CE ratio is exceptionally low.

110. Our recommendations in the foregoing respects are as follows:—

- (a) A contractor whose CP/CE ratio (on a semi-CCA basis) exceeds 4/1 should receive fixed percentage rates of profit on cost of 4.5 per cent (risk work) and 3.45 per cent (non-risk work).
- (b) In the rare event of a contractor having a CP/CE ratio (on a semi-CCA basis) of less than 1/1, the profit rate should be subject to special negotiation.

SECTION VII—INCENTIVES TO EFFICIENCY

Introduction

111. In the field of defence procurement, a prime concern should be the encouragement of an efficient industry capable of giving value for money (see paragraph 8). Efficiency of performance is a vital component of the 'value for money' concept. Efficiency can best be encouraged by the offer of an appropriate reward. This presents a very real problem in relation to non-competitive Government work.

112. So far as risk work is concerned, it cannot always be inferred that the contractor who turns in an above-average rate of profit has performed the contract with above-average efficiency; other factors may influence the level of reward. Conversely, extraneous factors may operate to erode the profit obtained on a contract which has been performed with outstanding efficiency. It can be argued that a contractor might actually be deterred from improving his efficiency because by doing so he may threaten his future level of reward.

113. So far as non-risk work is concerned, the original injection into the formula of an efficiency allowance has, for the reasons already explained in paragraphs 102 to 104 above, fallen so far short of its purpose that we have — albeit with reluctance — felt obliged to recommend its abolition in accordance with the expressed wish of both Government and contractors. There will then be no arrangements for providing incentives to efficiency on non-risk work.

114. The provision of real incentives to efficiency is a matter to which we have directed special attention in the present review. A joint Working Party* was set up, at the suggestion of the Board, to study and report upon ways and means whereby improved levels of efficiency can be rewarded and thus encouraged.

Agreement on Cost Reduction Schemes

115. The joint Working Party produced in October 1983 a paper recording the agreement reached between Government and industry upon a framework designed to pave the way for the introduction of Cost Reduction Schemes ("CRS") for a trial period of three years. A copy of this paper will be found in Appendix F.

The Board welcomes this agreement as a first step in the right direction but it will be apparent that much remains to be done if the initial momentum is to be maintained; the Board is ready to assist in any way it can.

116. The essence of the CRS concept is that the contractor will submit, for

*Comprising representatives of the MOD and contractors: the meetings are also attended by the Secretaries on behalf of the Board.

consideration by the MOD, proposals aimed at achieving a level of efficiency over and above that which could otherwise be expected in the absence of special incentives directed to that end.

When, following consideration and discussion of the contractor's proposals, a scheme has been agreed between the MOD and the contractor, the savings achieved under the scheme will be shared between the parties on an agreed basis. Furthermore, once the level of savings has been established, the contractor's agreed share may be reflected in the pricing of subsequent contracts. The contractor can thus look forward to a continuing benefit following demonstration of his ability to achieve a level of cost reduction beyond that ordinarily to be expected.

117. As is made clear in the agreed paper, the practical application of the CRS concept will call for flexibility of approach, and each scheme will require to be tailored to the needs of the particular case.

118. The Board recognises that this innovation will inevitably create some additional administrative burden. But this must be kept to the minimum, and care will be required to ensure that the implementation of CRS does not detract from the efforts that must continue to be made to achieve earlier pricing of risk contracts.

The Board has asked to be kept closely informed of progress achieved and of any particular problems that may be encountered in practice. Teething troubles are no doubt to be expected: they should be regarded as challenges to be met and overcome.

Supplementary Recommendations

119. Application of the CRS agreement is currently restricted to risk work and, normally, to individual contracts or groups of contracts exceeding £5 million in value.

The Board recognises that, until the merits of the arrangements have been tested, it may be wise to impose some limit on the scope of their application. However, so far as risk work is concerned there should, it is considered, be flexibility with regard to the monetary qualification. If in a particular context the introduction of a CRS is clearly feasible, the fact that the contract or contracts in question have a value of less than £5 million should not be regarded as a disqualifying factor.

120. It is in the Board's view vital that the Working Party should build on the foundations that have thus been laid. It should now direct its attention to exploring other possible means of encouraging efficiency, in relation both to risk and non-risk work.

Priority should be given to extending the application of CRS or analogous procedures into the non-risk field — a step the need for which is accentuated by the abolition of the efficiency allowance. We have invited the Working Party to submit its proposals in that particular respect within six months from the date of publication of this report.

SECTION VIII—THE ACCOUNTING CONVENTIONS FOR NON-COMPETITIVE GOVERNMENT CONTRACTS

Introduction

121. The Board's terms of reference require it to consider the Accounting Conventions used for determining the costs and capital employed for non-competitive Government contracts. These Conventions are applied by the MOD to the figures in contractors' accounts to ensure that there is uniformity in the methods of calculating costs and capital employed, consistent with the basis of the profit formula.

122. Both the Government and the J.R.B.A.C. have submitted proposals for changes to the existing Conventions, which have applied with only minor amendment since 1st August, 1970. Our recommended revised statement of the Conventions is set out in Appendix D, alongside the existing Conventions. We had hoped that we might be able to present a document which enjoyed the full support of both Government and J.R.B.A.C. In the event, although a considerable measure of agreement was reached at a series of meetings attended by representatives of both sides, we have had to exercise our own judgment on a number of matters which remained unresolved.

123. Explanations of the significant changes which we recommend are given below. Except where otherwise stated, references are to the recommended revised statement of the Conventions set out in Appendix D.

Attributable Overhead Costs

(a) General

124. The J.R.B.A.C. have proposed that the MOD should bear their share of all costs which are found in a contractor's books, other than those which are manifestly unnecessary, extravagant or wasteful. Acceptance of this proposal would mean that there would be no need for the present adjustments that are made to contractors' accounts, with a consequent saving of time and administrative cost. Whilst we applaud the objective of saving time and cost, we do not consider that this proposal is realistic; there must in practice be standard rules as to how costs and capital are to be defined for the purposes of the profit formula.

(b) Written explanations

125. The J.R.B.A.C. submitted that the MOD should be required to give a full written explanation for any items disallowed. It has always been required that a written explanation be given for disallowances of unnecessary, extravagant or wasteful outlays and, in the J.R.B.A.C.'s view, this requirement should be extended to cover overheads disallowed for any other reason.

126. The Government maintain that it is their practice to accede to any

reasonable request from a contractor for a written explanation; but a general rule of this nature would be likely to lead to unnecessary bureaucracy. In the Board's view this is largely a procedural matter which it is inappropriate to deal with in the Accounting Conventions. We nevertheless welcome the Government's assurance that a written explanation will be provided whenever a contractor submits a reasonable request.

(c) The cost of raising capital (Convention 1(A)2)

127. The J.R.B.A.C. submitted that the costs of raising capital should be treated as allowable overheads. We consider that such costs are part of the total cost of capital and should be met out of the return on that capital. They should therefore not be treated as an allowable expense for profit formula purposes.

(d) Bad debts and other costs identifiable only to non-Government work (Conventions 1(A)3 to 7)

128. The J.R.B.A.C. claimed that bad debts are an unavoidable business expense, the cost of which should be spread over a contractor's total business, including his Government work. The Government's view was that bad debts, together with certain other costs such as credit insurance and agents' commissions, do not arise on Government contracts and should therefore be excluded from allowable costs. This matter has been raised in previous reviews. We remain of the view that it is fair for these costs to be excluded. However, we accept that bad debts do occasionally arise on Government sub-contracts, and Convention 1(A)3 has been amended to cover that eventuality.

(e) After-sales service (Convention 1(A)8)

129. The Government maintained that any after-sales service costs found in a contractor's overheads must relate only to his non-Government sales, as the Government place direct contracts for after-sales service when it is required on equipment supplied to the Government. The J.R.B.A.C. have drawn our attention to one area where liability may attach to a contractor irrespective of whether the contract is a Government or non-Government contract — namely in relation to conditions and warranties under the Sale of Goods Act 1979. The costs resulting from such liability, they claimed, should be recoverable in overheads. Although this may be sound in theory, we believe this liability is likely to be a minor component of total after-sales service costs. Moreover, there must be considerable difficulty in identifying all of a contractor's after-sales service costs; there is therefore a possibility that the Government already bear some proportion of the costs of civil after-sales service work in the establishment costs allowed in overheads. This being an area where a measure of imprecision inevitably exists, we recommend that the existing Convention should be retained.

(f) Notional transactions (Convention 1(A)9)

130. We have received submissions from the J.R.B.A.C. urging the admission of notional transactions in overheads. Such transactions would include charges for use of properties and for other services (e.g. computer services) provided by other group companies. It would be fair, in the J.R.B.A.C.'s view, for such charges to be included on the basis of the value of the services provided, instead of their cost. The Government were opposed to this suggestion on the ground that such charges might include an excessive element of profit. They have

assured us however that, where they consider intra-group charges to be too high, they 'look through' those charges and substitute the eligible costs which are incurred by the group company supplying the services. They have indicated too that, where relevant assets are held in the books of another company within the group, they will allow an inter-company charge for depreciation based on the revalued assets to be included in a contractor's overheads and the underlying capital value to be taken into account in the contractor's CP/CE ratio. (In some cases it may be convenient to merge the two adjustments into a single adjustment.)

131. We recommend that the principle of 'looking through' intra-group charges and substituting the underlying costs and assets of another part of the group should be reflected in a new overhead Convention (1(B)5) and in an addition to Convention 4(A)2(a).

132. On the basis that the foregoing amendment is made to the Conventions, we do not consider that there is a good case for the admission of notional charges as proposed by the J.R.B.A.C.

(g) Costs related to assets excluded from capital employed (Convention 1(A)13)

133. The Government and the J.R.B.A.C. have agreed that there should be an amendment recording that costs related to assets excluded from capital employed under Convention 4(A)1 should be excluded from overheads. We understand that this change merely confirms present practice.

(h) Subscriptions and donations (Convention 1(A)14)

134. The existing Conventions exclude a number of the items from overheads which, we were told, are in practice accepted by the MOD. For example, the MOD accept all subscriptions and donations other than those of a political nature. The Conventions have been revised to reflect the current practice.

(i) Research and development expenditure (Convention 1(B)3)

135. The existing rules governing the admissibility of Private Venture Research and Development expenditure ("PV R&D") are embodied in a Guidance Document which was agreed in 1972 by the Government and the C.B.I. After considerable discussion with representatives of the Government and the J.R.B.A.C. we are recommending certain amendments to the Guidance Document. The revised text incorporating our recommendations is reproduced in Annex 1 to Appendix D. The principal topics raised by the parties are described in the following paragraphs 136 to 142.

(i) Definition of applied research and product development (paragraph 5 of the Guidance Document)

136. One major issue concerns the demarcation line drawn in the Guidance Document between applied research, which is recoverable in overhead costs, and product development, which is not. The argument mainly turns upon the classification of prototypes and demonstrators. The J.R.B.A.C. submitted that certain prototypes and demonstrators should fall within the definition of applied research. This definition, they claimed, should cover prototypes and models whose purpose is to establish the practicability of new technology. The MOD

maintained that they do in practice classify such a prototype or model as applied research so long as it does not constitute product development as defined in paragraph 5 of the Guidance Document: the criterion is that it should not be "substantially in a form in which it could be marketed".

137. In order to clarify the definitions in the Guidance Document, we recommend that the following footnote should be added:—

"Work directed towards the creation of a new or improved product, system, component or material which is not substantially in a form in which it could be marketed is normally applied research.

Work directed towards the creation of a new or improved product, system, component or material which is substantially in a form in which it could be marketed is normally product development.

Work on a technology demonstrator, provided that it stops well short of the stage at which it could be marketed, is normally applied research."

138. Concern was expressed by the J.R.B.A.C. in this context that MOD accountants did not always seek technical advice when forming the judgments required under paragraph 5 of the Guidance Document. They urged that the Guidance Document should stipulate that technical opinion should be sought wherever necessary. The MOD told us this is the current practice, and they assured us they would give serious consideration to any specific request from a contractor that technical opinion should be sought. Having regard to these assurances, we consider that no change in the text of the Guidance Document is required.

(ii) The attribution of PV R&D expenditure to product groups or products (paragraph 7 of the Guidance Document)

139. The Guidance Document provides that expenditure should be attributed to the product groups, or where realistic and appropriate to the specific products, which the expenditure is designed to benefit. The J.R.B.A.C. urged that the aim should not be to identify the specific products or product groups that are relevant but rather to spread a contractor's PV R&D expenditure over all the products likely to be purchased by the Government.

140. In our opinion the test in the Guidance Document is quite satisfactory, namely: what product groups or specific product was the PV R&D expenditure in question designed to benefit when it was incurred? We consider that the existing wording should be retained.

(iii) Agreements limiting the Government's contribution (paragraph 10 of the Guidance Document)

141. The Guidance Document provides that: "Expenditure attributable to an agreement between HMG and a contractor which specifically limits the amount of the Government's contribution will not, unless specifically provided for in the agreement, normally be recoverable through overheads on Government contracts".

We recommend that this passage should be amended to refer to "the contracting Department" rather than "the Government", in order to reflect what we believe to have been the original intention: namely, to deal only with cases where the

contracting Department itself has entered into an agreement to make a contribution towards the cost of a research or development project.

(iv) Abortive development (paragraph 13 of the Guidance Document)

142. The J.R.B.A.C. submitted that paragraph 13 is not being applied by the MOD as originally intended, and that too restrictive an approach is being taken to the recovery of abortive development expenditure. We propose an amendment to the wording of paragraphs 9(b) and 13 to reflect what we understand to be the MOD's current practice of allowing the recovery of abortive product development expenditure, reasonably incurred, over appropriate product groups.

(j) Items treated as reducing overhead costs (Convention 1(C)1)

143. The J.R.B.A.C. suggested that overheads should no longer be reduced by deducting grants and certain other revenue incentives. They considered that such incentives are intended to benefit the recipient and that the effect of deducting them from allowable overheads is to transfer part of the benefit to the MOD.

144. We see no reason for departing from the view expressed in our 1970 Report that such incentives are given primarily to reduce the cost of production and to make the recipient more competitive. We therefore recommend that there should be no change.

(k) Depreciation (Convention 1(D)1)

45. The Government and the J.R.B.A.C. (subject to a dissenting view by a small number of major contractors) proposed that revaluation of fixed assets should be permitted for the purposes of calculating both capital employed and depreciation charges. We concur with that proposal. We also recommend that depreciation charges should be calculated after deducting investment grants, building grants or other capital grants. We comment further on certain aspects of these proposals, in the context of capital employed, in paragraphs 148 to 155 below.

Capital Employed

(a) Choice of units for CP/CE ratios (Convention 3)

146. We recommend that the wording of this Convention should be amended so as to reflect the Board's views, set out in Section IV of this Report, concerning the importance of calculating CP/CE ratios for the most relevant business unit.

(b) Consolidation adjustments (Convention 4)

147. The general principle underlying the computation of capital employed according to the Conventions is that the figures shown in the contractor's balance sheet for the relevant unit will be used wherever possible. We have introduced into Convention 4 the words "Provided no further adjustment has taken place in Group Accounts"; the purpose of this recommended amendment is to ensure consistency between the accounting policies adopted in the accounts

of the subsidiary or business unit used for contract pricing and those adopted in consolidated published accounts.

(c) Revaluation of tangible and intangible fixed assets

148. In the Board's view, there are compelling arguments for departing from the present historic cost basis of the Accounting Conventions and the profit formula, and for permitting the revaluation of fixed assets — both tangible and intangible — on current cost principles. This should provide a more realistic basis for measuring capital employed and be fairer as between contractors. Both the Government and the J.R.B.A.C. agree that this major change is now practicable. There are four matters to be considered in connection with the revaluation of tangible and intangible fixed assets:—

- (i) the future of SSAP 16;
- (ii) the accounting information required in contractors' accounts;
- (iii) underutilised assets; and
- (iv) intangible assets.

(i) The future of SSAP 16

149. It is possible that the current review of SSAP 16 will have the result that in future companies will not be required to prepare CCA accounts in their present form. It is likely, however, that there will still be a requirement to give some CCA information in financial statements. The proposed new Convention provides that the revaluation of assets for inclusion in contractors' capital employed should be calculated in accordance with the principles set out in the Guidance Notes on SSAP 16, or with any Accounting Standard which may in future succeed SSAP 16.

(ii) The accounting information required

150. We have received representations from the J.R.B.A.C. on behalf of some smaller companies who are not at present required to prepare CCA accounts and are reluctant to incur the expense of doing so. It would be inequitable, it was submitted, for such companies to be denied the benefit of the inclusion of revalued assets in capital employed. The MOD have assured us that they will not insist on a company producing full CCA accounts but will accept confirmation by the company's auditors that the assets for inclusion in capital employed have been valued in accordance with the principles of SSAP 16 or any successor Standard. This principle is reflected in the recommended Convention 4(A)2(a).

(iii) Underutilised assets

151. The Board is concerned that the new arrangements should not result in the overstatement for profit rate purposes of tangible and intangible assets which are not sufficiently utilised. Attention should be paid to paragraphs 28 to 31 of the Guidance Notes to SSAP 16* and to the need to adopt a prudent approach towards the valuation of assets which are significantly underutilised.

*Reproduced in Annex II to Appendix D.

(iv) *Intangible assets*

152. Attention should be paid to paragraph 45 of the Guidance Notes to SSAP 16 which states, with regard to intangible assets: "... it is not intended that current capital costs should be established where it has not been the practice under the historical cost convention to capitalise such costs". Exceptionally, however, in relation to patents and trade marks we recommend retention of the present Convention 4(A)2(c) which in certain circumstances allows some value to be included in capital employed although the assets are not shown in the company's balance sheet.

**(d) Investment grants, building grants and other capital grants
(Convention 4(A)2(a))**

153. The present convention regarding assets which are subject to capital grants is to treat them on a 'gross' basis — i.e. grants are not deducted from the cost of assets in either depreciation or capital employed calculations. This treatment was adopted in 1970, largely for the reason that the target rate of profit then in force had been calculated on the basis of the profitability of companies in a period before the introduction of capital grants; assets would therefore have been expressed in company accounts on the 'gross' basis.

154. Since 1970 the accountancy bodies have introduced SSAP 4 "The Accounting Treatment of Government Grants". Asset values and depreciation charges in the reference group now used by the Board are net of capital grants. The Government have submitted therefore that, for consistency, the 'net' basis of treatment of capital grants should be adopted in the Conventions. The J.R.B.A.C. argued that such a change would result in the Government taking away with one hand what it has given with another; that it could act as an incentive for contractors to operate outside development areas and that it would amount to a retrospective withdrawal from contractors of well-publicised Government incentives.

155. In the Board's view the capital element of the formula is intended to reward a contractor for the use of his own capital. We consider a further argument for change is that the target rate of return in the profit formula is calculated on the basis of depreciation charges and asset values net of capital grants. We therefore recommend that investment grants and other capital grants should in future be deducted from asset values for inclusion in capital employed and when calculating depreciation charges. We recognise that this change, although logical, could have a substantial impact on some companies which have entered into investment projects with a regional capital grant scheme in mind. If hardship can be demonstrated in individual cases, the Government should consider whether concessionary treatment would be appropriate.

(e) Finance leases

156. The J.R.B.A.C. have suggested that the capitalised value of assets on finance leases will need to be taken into account in arriving at capital employed if the current Exposure Draft on Accounting for Leases and Hire Purchase Contracts (ED 29) becomes a Statement of Standard Accounting Practice. The Conventions may well need to be modified in due course to take account of this proposed change in accounting treatment, but this is a matter for the future.

(f) Surplus cash (Convention 4(A)1(e))

157. The present Convention provides for a contractor's surplus cash to be excluded from capital employed. The underlying logic is that the funds that a contractor has available for investment outside the business do not need to be further remunerated by means of the profit formula.

158. The J.R.B.A.C. have proposed a relaxation of this Convention, so as to allow a contractor to include in his capital employed cash and investments to the extent that they are expected to be required for use in the business within the foreseeable future. The J.R.B.A.C. argued that the fact that such funds are, for the time being, invested outside the business and earning interest should not affect the matter. Indeed, to exclude surplus funds on these grounds would serve to discourage companies from the efficient management of their liquid resources.

159. The Government on the other hand maintained that all funds that are available for external investment should, for profit formula purposes, continue to be excluded from capital employed. The J.R.B.A.C.'s proposal would lead to double remuneration — a contractor's cash and short term investments could be remunerated both by the profit formula and by the interest that can be earned through their being invested outside the business.

160. We believe that the principle upon which the Convention has hitherto been based is sound. Funds that are available for investment outside the business do not need to be remunerated by the profit formula. However, in determining what cash is surplus to requirements, we would expect the MOD to recognise that a company may need to hold a certain amount of cash to enable it to conduct its business efficiently. We therefore propose the introduction of an explanatory parenthesis to make this clear; the Convention would then read as follows:—

“Cash demonstrably surplus to requirements (i.e. short term investments; deposits; and cash demonstrably in excess of the amount required for working cash resources for day to day operations)”.

(g) Development expenditure (Convention 4(A)2(d))

161. The present Convention permits the inclusion in capital employed of development expenditure up to the value shown in the balance sheet, net of provisions, provided that orders have been received, or are likely to be received, for the product under development. The limited circumstances in which such expenditure can be carried forward in companies' accounts are specified in SSAP 13 and under the prudence concept in SSAP 2.

162. The J.R.B.A.C. proposed that if, for any reason, PV R&D costs are not all recovered through overheads they should be allowed as capital employed, regardless of whether they have been carried forward in the contractor's accounts. This would in effect be a return to the position which obtained prior to the Board's 1970 Report.

163. This proposal is a repetition of one made by the J.R.B.A.C. on the occasion of each of our previous general reviews. We see no reason to change

the view we have expressed in the past, namely that the present Convention is fair and reasonable. We do, however, propose an addition to Convention 1(D)1 to make clear that the amortisation of development expenditure carried forward should be treated as development expenditure to be recovered under paragraph 9(b) of the Guidance Document and not as depreciation for inclusion in general overheads.

(h) Debtors (Convention 4(A)2(h))

164. The present Convention permits a contractor to raise the balance sheet value of debtors to reflect increases becoming known after the balance sheet date resulting from the settlement of prices previously included at provisional figures. The Government proposed that this Convention should be withdrawn because it contributes to delays in the agreement of CP/CE ratios, and hence to delays in price fixing. The J.R.B.A.C. were strongly opposed to this proposal. They maintained that this Convention is justified by the special features of non-competitive Government contracts. The ascertainment of a contractor's Government debts is dependent upon the receipt from Government of the relevant indices and agreement of other aspects of final prices; its timing is thus to some degree in the hands of the MOD.

165. Although we consider that a contractor's capital employed should where possible be based on his financial accounts, in this case we accept that it would be fair to retain the present arrangement. We have, however, amended the wording to permit figures to be adjusted downward as well as upward; both parties have agreed to this change. The Board is concerned that the retention of the Convention should not contribute to delays in agreeing CP/CE ratios and considers that normally adjustments should be confined to figures established within six months of the closing balance sheet date.

(i) Taxation liabilities (Convention 4(B)(c))

166. The present Convention treats the provision for corporation tax on the profits of the current year and the deferred tax account as part of the capital employed. All other taxation provisions are treated as liabilities. The J.R.B.A.C. proposed that all taxation provisions should be treated as capital employed. The J.R.B.A.C.'s view is that a corporation tax liability is an unpaid appropriation of profit which should not be deducted from assets as it does not decrease the funds required to maintain a company's operating capability.

167. In our view the best basis of classification of taxation liabilities for this purpose is the basis used by companies when drawing up their accounts. Both the Companies Act 1981 and SSAP 8 "The Treatment of Taxation under the Imputation System in the Accounts of Companies" distinguish between corporation tax payable within twelve months and that payable more than twelve months after the balance sheet date. The former is shown under current liabilities and the latter is shown as a separate non-current liability. We propose, therefore, that the Convention should be amended to reflect that method of treatment.

(j) Provisions (Convention 4(B)(f))

168. Both the Government and the J.R.B.A.C. proposed new Conventions

dealing with creditor provisions. The Government version distinguished between short-term (less than one year) and long-term provisions; only the latter provisions would be included in capital employed. The J.R.B.A.C. wished to include all provisions in capital employed. We are told that the Government's version reflects the current MOD practice. We believe that it also accords with the normal presentation adopted by companies in their accounts. We therefore recommend that the Government's proposal be adopted, and this is reflected in the new Convention 4(B)(f).

(k) Government capital assistance (presently Convention 5(C))

169. The Government proposed the deletion of the present Convention, which permits there to be a notional addition to a contractor's capital employed in respect of certain Government-owned assets. The rental for Government-owned assets is now fully allowed in overheads, whereas previously it was only partially allowed. We agree that the present Convention is no longer required and recommend its deletion.

Cost of Production (Convention 5)

170. The Government and the J.R.B.A.C. agreed that there was a need for a new Convention defining cost of production for the purposes of calculating CP/CE ratios, and each side submitted a suggested definition. The Government's definition would include in cost of production all direct and indirect costs with the exception of capital expenditure, the cost of servicing loan capital, profit appropriations and notional transactions. The J.R.B.A.C. contended that there should be consistency in the treatment of cost of production and overheads: all costs excluded from overheads should likewise be excluded from cost of production.

171. In the Board's view the costs excluded from overheads should for this purpose be divided into two categories: (a) those which are excluded because they are associated with non-Government work (e.g. certain bad debts), and (b) those which are excluded because they are inappropriate per se to act as a base for the calculation of profit (e.g. wasteful costs, interest, etc.). In our view costs of type (a) should, for the present, continue to be included in cost of production for the purposes of calculating CP/CE ratios. It would not be appropriate to seek to identify either the non-Government or the Government elements of the cost of production of a business unit, when no similar analysis is made in respect of capital employed. This conclusion will, however, fall to be reviewed during the further examination of capital employed which, it is proposed, should form part of the 1984 intermediate review (see paragraph 39). Costs of type (b), on the other hand, should be excluded from cost of production so that there is consistency with the way in which admissible contract costs are defined.

The foregoing distinction is reflected in our recommended new Convention 5.

SECTION IX—MISCELLANEOUS MATTERS

Obstacles to Earlier Pricing

172. The Board's terms of reference require consideration to be given to the obstacles to earlier pricing of the various kinds of contract. This is a topic which has also been the subject of consideration in each of our previous triennial reports.

The Board has repeatedly expressed its concern that pricing all too often occurs when the work is well advanced or even completed. Where there is no agreement upon a contract price until the work is far advanced the contractor will have little incentive to improve his efficiency. Furthermore, the risk element is progressively reduced as the work advances; yet, if the contract has been placed on a risk basis, the contractor will still be entitled to the risk rate of reward.

173. Nobody disputes that delay in pricing is highly undesirable. In the 1977 Report the Board set as the immediate objective a reduction in the value of contracts remaining unpriced by the time that half the contract work had been completed; the Board expressed the hope that, by the time of the next review, this would amount to no more than one-third of the total. The intention was thereby to set a realistic, if modest, target which, it was considered, should be capable of early achievement; its attainment would still leave ample room for further improvement.

174. The following MOD statistics indicate that some progress has been made over the past decade, but the present situation is not one that affords any grounds for complacency. On the contrary, this remains an area in which further and sustained improvement is called for.

	<i>Percentage (by value) of Contracts remaining Unpriced Year to 31st March</i>					
	1973	1979	1980	1981	1982	1983
	%	%	%	%	%	%
At commencement	85	74	54	85	63	66
25 per cent of work complete	80	66	50	73	37	56
50 per cent of work complete	62	52	34	57	22	37
75 per cent of work complete	45	17	14	27	11	17
100 per cent of work complete	27	9	8	18	5	11

175. It must be recognised that late pricing is not a problem that admits of any simple solution. The J.R.B.A.C. put forward for our consideration certain detailed proposals for fairly substantial revision of the guidelines contained in Defcon Guide No. 3 — the document which was agreed between Government and industry in 1976 with the object of simplifying and accelerating the price-fixing process.

We do not record these proposals here in detail because, whilst they have

received our careful consideration, we are not satisfied that the root of the problem lies in a defect in the basic framework established by the Defcon Guide. It lies, in our view, rather in the need for application of the guidelines so prescribed in a way that better accords with their general spirit and intention. As with any other code of conduct, it is compliance with the spirit that ultimately counts.

176. This is not to say that the Defcon Guide should not be subject to whatever revision may be appropriate in the light of experience. This is a matter which we consider best left to discussion between the parties. We would not however favour a radical revision at this stage of ground rules which have been operative for only a relatively short period.

177. One aspect of the J.R.B.A.C. proposals calls for particular mention, namely the suggestion that earlier pricing would be facilitated if a pricing programme were to be agreed between the parties in relation to each particular contract. We consider there to be merit in this suggestion, but such arrangements should in our view be capable of accommodation within the existing framework of the Defcon Guide.

178. Identification of the kind of obstacles that stand in the way of earlier pricing may contribute to a better appreciation of the problem. Our own understanding has certainly been assisted by a special enquiry which we instigated for the purpose of the present review.

We caused a detailed examination to be carried out of four contracts in which there had been a significant delay in agreement of the price. They were selected by the MOD as being illustrative of various situations in which delays are in practice experienced. The contractors concerned agreed with the MOD's choice, although one of them proposed, and the MOD agreed, that the selected contract should not be studied in isolation and that other contracts for supply of the same equipment should also be examined.

179. One of the contracts examined was a production contract undertaken in parallel with development of the equipment concerned and was subject to constant changes of specification and delivery dates. In those circumstances delay in pricing was probably inevitable. The difficulties were compounded by the fact that substantial parts of the equipment were provided by nominated sub-contractors and the prime contractor had no control over the very late pricing of this sub-contract work. It may be argued that it should have been recognised at the outset that the contract was unsuitable for pricing on a risk basis; but it could also be said that the parties deserve credit for having agreed to price on that basis when cost-plus would have offered an easy option.

180. The other three cases were follow-on contracts which, in the ordinary course, might be expected to have been priced at an early stage. That this did not happen was due to a variety of different factors.

In one case the contractor's quotation and subsequent supply of pricing information were delayed due to uncertainties over manufacturing costs; some work had to be put out to sub-contract due to overloading of the contractor's own resources. There was however also evidence of a lack of confidence on the part of the MOD in the contractor's estimates. If, as here happened, the MOD

consider it necessary to check the contractor's estimate against previous costs, delay in obtaining the relevant information may well effectively preclude early pricing.

The next case examined was one in which there was clearly a relationship of mutual confidence between the contractor and the MOD. But there was still delay, attributable largely to a late change in the MOD's requirements. This demonstrates that, even in a situation where both sides are ready and anxious to price at an early stage, their wish may be frustrated by some extraneous factor. The fourth case was one in which there appeared to be a degree of lack of confidence on both sides. The efficiency of the contractor's cost recording system was seriously suspect and the MOD also considered that there was difficulty in obtaining access to required information. The contractor, for his part, also had problems. For example, there was delay in agreeing a delivery programme and, due to the inability of the MOD to disclose future requirements, the contractor was hampered in calculating the loading for forward overhead rates.

181. Our investigation of these contracts has served to demonstrate that there are a wide range of factors which can lead to delays in price-fixing. Some of the problems encountered are, or should be, more readily soluble than others. But there are bound to be a number of cases where the wish of both parties to reach early agreement is thwarted in practice due to circumstances beyond their immediate control. It is apparent that the Board is in no position to suggest a general panacea. It must be for the parties concerned to identify whatever problem emerges in relation to a particular contract and exert themselves to devise the best possible solution.

182. In their submissions to us and in discussions which took place in connection with our foregoing enquiry, each side drew our attention to suggested shortcomings on the part of the other. By way of example, the MOD drew attention to the slow progress thus far achieved in agreeing monographs* under Defcon Guide No. 3. Some contractors, however, complained that the procedure for agreeing monographs was too cumbersome. There is, we think, room for improvement on both sides.

183. We wholeheartedly endorse the stress laid in the Defcon Guide itself upon the need "to encourage greater reliance on the presumption of good faith . . . and to develop the mutuality and frankness inherent in the concept of equality of information".

An adequate level of confidence between the parties' negotiators and mutual observance of the equality of information principle are essential prerequisites of early pricing. If those conditions exist, early pricing is unlikely to be prejudiced by the fact that the requirements of the Defcon Guide may not in every particular be met.

184. However, frankness and confidence are not enough. While every effort

*A monograph consists of a written description of the contractor's costing and estimating systems agreed between the MOD and the contractor, which is then made available to the negotiators involved in the task of pricing particular contracts.

must be made to price the contract at a stage when there is still a substantial element of risk, a realistic appraisal will in some cases show that objective to be out of reach. If so, realism must prevail and consideration must be given to use of one of the flexible pricing arrangements which we describe in paragraph 188 below. In the last resort, it may be necessary to fall back on a cost-plus contract.

185. Another important need, as we observed in paragraph 26 of our 1974 Report, is that there should be "a willingness by both sides to take commercial judgments in a risk situation". We were encouraged to find that one of the cases which we examined provided a good example of the Government negotiator concerned having been prepared to exercise just such a judgment.

186. Mention should, in conclusion, be made of certain specific matters which emerged in relation to this aspect of the review and which we think are worthy of further consideration by Government and contractors:—

- (a) A specific complaint raised by the J.R.B.A.C. was that MOD negotiators tended to disallow any element in the price which is labelled as a contingency. In cases where the contractor has an efficient estimating system and there is an agreed monograph it is wrong, so the J.R.B.A.C. submit, that he should be put at a disadvantage by comparison with the contractor the reliability of whose estimating and costing systems may be open to question. We consider there to be merit in that contention.
- (b) Some contractors maintain that the imposition of a deadline for acceptance of the quotation tends to accelerate the price-fixing process. We favour the extension of this practice within the overall arrangements for pricing programmes referred to in paragraph 177.
- (c) Work carried out by nominated sub-contractors formed a significant element of the price make-up in two of the contracts which we examined. In each case the sub-contract element of the price was agreed some considerable time after the prime contractor's own element had been agreed. This suggests that the sub-contract element may tend to receive insufficient priority in the price-fixing process, with potential injustice to the prime contractor if his final payment is delayed as a result. One possible solution would be the introduction of arrangements whereby a prime contractor would receive, in lieu of his profit on sub-contract costs, a fixed management fee for monitoring nominated sub-contractors whose performance may affect his own reward.

Flexible Pricing Arrangements

187. Paragraph 13(d) of the Profit Formula Agreement states that "it is the intention to identify risk contracts at the time when instructions are given to proceed and, having made the initial decision to price on estimates, not to vary the allowance for risk because of delays in agreeing prices".

It was nevertheless recognised that there must be some flexibility. Thus, it was expressly provided in paragraph 5(d) of the Agreement that if there were too much uncertainty to enable fair and reasonable prices to be fixed with appropriate contingency margins incorporated, the use of incentive contracts with profit sharing provisions should be considered.

188. There are bound to be situations in which it is impracticable to determine at the outset whether a particular contract can properly be regarded as suitable for pricing on a full risk basis.

A number of contract variants have been evolved to deal with situations of that kind.

(a) Target cost contracts

In these contracts the MOD and the contractor agree a target cost for the work and a target profit, together with a formula according to which either cost savings beneath the target or costs in excess of the target will be shared. The precise form of the cost-sharing varies according to the circumstances of the contract, particularly the degree of confidence which the parties have in the estimate of the target cost. In some cases the formula includes the provision of a ceiling or maximum price, above which all costs fall to be borne entirely by the contractor. This type of target cost contract is used when the parties consider that they are able to predict the cost of performing the work with a fair degree of confidence, but not with sufficient confidence to agree a fixed price. Target cost contracts without a maximum price are used when there is greater uncertainty, but not so great as to necessitate use of cost-plus. These contracts usually contain a provision that the contractor's profit shall not fall below a specified level; after this point is reached, all further costs fall to be borne entirely by the MOD.

Target cost contracts which do not include a minimum profit provision are classed as risk contracts. For target contracts which do include a minimum profit provision, the profit rate is a matter for negotiation within the range of the risk and non-risk rates.

(b) Hybrid contracts

The necessary prerequisite to the use of this type of contract is that there should be genuine doubt about the feasibility of agreeing a fixed price on the basis of cost estimates. The contract is initially placed on a non-risk basis, subject to a specific statement of intention to introduce incentive-pricing at some agreed stage. It is further provided that the contract should continue on a cost-plus basis (with the non-risk rate of profit) if agreement on an incentive-pricing arrangement is not reached by the agreed stage. Conversely, if there is a timely transfer to a risk basis the risk rate of profit will apply to the totality of the work.

(c) Two-tier contracts

This type of contract has been used in the occasional case where there was a past record of delays in price fixing so that there was a doubt whether the price would be agreed while a significant risk remained. The contract is placed on the basis that the full risk rate of profit will apply to the totality of the work only if a fixed or other incentive rate has been agreed by a stipulated date. If that date is over-run, the risk rate will apply only to that part of the work still remaining to be carried out at the pricing date, the non-risk rate applying to work carried out prior to that date. The objective of the two-tier type of contract is thus broadly similar to that of the hybrid type, namely to ensure that the full risk rate shall be payable only if the contract is priced by the appropriate stage.

189. Both sides are agreed that the target cost contract has proved a useful instrument and the Board would welcome an extension of its use in appropriate cases.

190. It is probably too early to judge whether the hybrid and two-tier types will serve an equally useful purpose. We were disappointed to be told by the MOD that, of the contracts so far placed on the hybrid basis, no more than about one-tenth had been converted onto a risk basis. This may suggest that hybrid contracts are sometimes being used in situations where the prospect of ultimate conversion is so remote that it would be better to accept, at the outset, that they should be placed on a non-risk basis.

191. Notwithstanding the caveat which the Board entered in its 1977 Report, namely that hybrid contracts should be resorted to only in cases of exceptional difficulty, the MOD would like a wider discretion to use this form of contract. The J.R.B.A.C. did not agree.

We consider that some extension of the use of hybrid and two-tier contracts would be justified. This could help in achieving earlier price-fixing. We would however hope to see in the future a reduction in the proportion of hybrid contracts that eventually run out on a non-risk basis.

192. We consider that employment of flexible pricing arrangements should not be restricted to contracts of a fixed minimum value. The dominant consideration should in each case be the suitability or otherwise of the particular contract for special treatment within one or other of the foregoing categories.

193. Although flexible pricing arrangements have their place within the profit formula regime, care must be taken to ensure that they are not employed in cases where the circumstances are such that the contract should be placed at the outset on a full risk basis.

Non-competitive Contracts priced Outside the Profit Formula

194. The MOD provided us with statistics of the number and value of non-competitive contracts priced outside the profit formula. The values are shown in paragraph 79 above. Over the period 1979 to 1983 contracts of this type accounted for nearly 20 per cent of the total value of non-competitive contracts placed. However, these contracts are individually of relatively low value (averaging £19,250 in 1982/83), and the total consists substantially of purchases of proprietary products, priced on the basis of the suppliers' list prices.

195. The Government's main criterion in deciding whether to rely upon the supplier's list price for proprietary items is whether there are comparable products marketed in the U.K. by at least one other supplier whose market share is large enough to provide genuine competition. Where that criterion is inapplicable, the purchasing department normally endeavours so far as possible to secure information analogous to that obtainable under the equality of information principle. They told us that, although most contractors co-operate fully, some object to the 1968 arrangements being used to regulate the prices of proprietary items which they claim should be based on what the market will bear. The Government do not accept that view and assert that 'an element of transparency' is essential whenever goods are purchased on a non-competitive

basis. In such cases, the only distinction to be made between proprietary and non-proprietary purchases is that in the former case a fair share of the contractor's product development expenditure is allowed for in the price.

196. The Board considers that the Government's approach to this matter is correct; those contractors who are at present reluctant to co-operate should fall in line with the majority.

Post-Costing

197. We are required by our terms of reference to consider whether the post-costing arrangements should be modified, having regard to the purpose for which they were introduced.

198. The right of the Government to post-cost risk contracts on a selective basis was introduced in 1968 and was fundamental to the arrangements then concluded.

Paragraph 11 of the Profit Formula Agreement set out the purposes for which this post-costing right would be exercisable; it also stressed the need for selectivity so that no undue burden should be placed on either side. The right is exercisable for the following purposes only:—

- (a) in pricing follow-on contracts, as an essential element in equality of information;
- (b) to enable the MOD to check the accuracy of their estimating procedures;
- (c) to provide the information for a selective scrutiny of the outcome of particular contracts so that reference may be made by either side to the Review Board.

199. The J.R.B.A.C. would like to see greater selectivity in enforcement of the Government's post-costing rights; whereas the Government maintain that post-costing is kept to the minimum consistent with fulfilment of the purposes for which the right was established, and that they do exercise a proper degree of selectivity.

200. The MOD have provided the following statistics relating to post-costing completed and refunds obtained during the three years 1980-82, the bracketed figures in the right-hand column showing the corresponding totals for the preceding three years:—

MOD Post-Costing Statistics

	1980	1981	1982	<i>Total</i> 1980-82 (1977-79)	
Contracts post-costed:—					
(i) Number	81	80	69	230	(253)
(ii) Value	£175.0m	£290.0m	£378.0m	£843.0m	(£381.0m)
Contracts on which the trigger point was exceeded:—					
(i) Number	18	15	15	48	(92)
(ii) Value	£16.5m	£32.0m	£47.0m	£95.5m	(£162.0m)
Contracts on which refunds were negotiated by the MOD in the light of the post-costing results:—					
(i) Number	5	9	13	27	(21)
(ii) Value	£11.0m	£7.5m	£34.0m	£52.5m	(£27.0m)
(iii) Amount of refund	£0.3m	£0.4m	£2.5m	£3.2m	(£2.5m)

201. Post-costing is seen by the MOD as being a fundamental element of the arrangements agreed in 1968. Refunds averaging around £1m a year for 1977-82 are small amounts in relation to the totality of contracts and this is one indication that the system is working reasonably well. The smallness of the amounts recovered certainly does not constitute a case for doing away with post-costing, the presence of which is a necessary discipline in the system. We are assured by the MOD that the right to post-cost is exercised with discretion and we have no reason to suppose that the requirement of selectivity has not in the past been properly observed. We are satisfied that post-costing continues to be necessary and we do not recommend any modification.

202. In paragraphs 32-35 of its Sixteenth Report (Session 1981-82) the Public Accounts Committee contrasted the profit rates disclosed by the Annual Returns submitted to the Board (namely average returns for 1975-78 of 21.2 per cent on risk work and 16 per cent on non-risk work) and the indications of higher profit levels afforded by the results of MOD post-costing.

203. There are a number of factors which must be borne in mind when any comparison is made between the information supplied to the Board in the Annual Returns and that yielded by the MOD post-costing operations. In the first place, the statistics of post-costing for a given period deal with those post-costing investigations that were completed in that period; they therefore relate to contracts performed at considerably earlier dates. The Annual Returns received by the Board, on the other hand, cover work done by contractors in a particular year. An allowance for this difference in timing must therefore be made when comparing the two sets of figures. Next, the coverage of the post-costing statistics is small by comparison with that of the Annual Returns. Some 80 contracts per annum are selected for post-costing with a total value of the order of £300m. The value of risk work covered by the Board's Annual Returns is over four times as much. Last, but by no means least, it has to be borne in mind that in some cases the MOD very properly exercise the right to post-cost because they

consider the profit on the chosen contracts may be shown to be higher than average. This element of selectivity in post-costing means that the figures yielded by the Annual Returns are likely to give a more representative picture. Post-costing was not designed to supply, nor is it able to supply, indications of the overall rate of profit being yielded at any given time by the profit formula. That is the function of the Annual Returns.

References to the Review Board

204. At present, individual risk contracts may ordinarily be referred to the Board only if the contractor has made a profit of, or exceeding, 37.5 per cent on capital employed or a loss of, or exceeding, 4.5 per cent on capital employed. These reference trigger points, which are expressed on an historic cost basis, relate to the present profit formula which provides a target rate of return on risk work of 23 per cent.

There are special provisions for contractors with a CP/CE ratio greater than 3/1; the reference points are defined as a profit of, or exceeding, 12.5 per cent on cost and a loss of, or exceeding, 1.5 per cent on cost.

205. Both the Government and J.R.B.A.C. consider that the present trigger points need amendment. They both propose that the upper and lower reference points should be expressed simply in terms of the difference between outturn and estimated costs. The Government point out that the MOD seek to negotiate fixed prices when a cost estimating accuracy within 10 per cent can be expected. The Government consider that the trigger points should be symmetrically spaced on either side of the target rate of profit, which they are not at present. The J.R.B.A.C. proposes asymmetrical points: a contract should be subject to possible reference by the Government if the outturn costs fell 15 per cent or more below estimated costs, and by the contractor if outturn costs exceeded estimated costs by 10 per cent or more. The asymmetry of these proposed trigger points is justified, according to the J.R.B.A.C., on the ground that it would permit a contractor to retain some additional reward for productivity improvement or other increases in efficiency.

206. We consider that the trigger points should be set symmetrically. If the upper trigger point were shown to have been exceeded as a result of increased efficiency or productivity over that which could reasonably have been estimated, there should be no case for challenging the contractor's right to retain the additional reward. So the apprehension expressed in that respect by the J.R.B.A.C. is, we think, unfounded.

207. We concur with the suggestion of both sides that the trigger points should be re-defined on the basis of the variance between estimated and outturn costs. We recommend that a contract should normally be eligible for reference to the Board where outturn costs vary from estimated costs by 10 per cent or more. The provision in paragraph 17 of the 1968 Memorandum of Agreement, permitting reference of exceptional cases notwithstanding that the profit or loss lies within the trigger points, should be retained.

SECTION X—PROFITS ON NON-COMPETITIVE GOVERNMENT CONTRACTS 1979-81

The Coverage of the Annual Returns

208. The Board has received Annual Returns from major contractors showing their total profits on non-competitive Government work for the years 1979-81, divided between risk and non-risk contracts. As in the last general review, we are reporting on the profits returned during the three-year period ending some two years prior to the date of our report. Some time lag is inevitable since completion of the Annual Returns has to await agreement with MOD of individual contractors' overhead rates and CP/CE ratios.

209. In requesting Annual Returns from contractors we seek to cover an adequate proportion of non-competitive Government contracts placed by the MOD. As in the past, the MOD supplied us with a list of the contractors whose contracts accounted for a high proportion of the total value of profit formula work undertaken during the period under review. We have been supplied with returns by almost all the contractors on that list. In all we received Annual Returns from a total of 68 contractors, as compared with 51 for our 1980 Report. The aggregate sales value of non-competitive contracts covered by the Returns for the three years was £7,410m. We are satisfied, on the basis of the information provided by the MOD concerning the total value of non-competitive contracts placed*, that the contractors concerned embrace a high proportion by value of risk, and an even higher proportion of non-risk, contracts; the coverage is fully adequate for the purpose of this review.

210. The Annual Returns call for an analysis of the contractor's turnover and profits as shown in his audited annual accounts, differentiating between non-competitive Government contracts (split between risk and non-risk contracts) and all other work.

The profitability of non-competitive Government work is expressed as a return on capital employed, using for that purpose the CP/CE ratio agreed between the MOD and the contractor for the relevant year. The costs applicable to Government contracts are reported on the basis of using overhead rates agreed with the MOD. The Returns are accompanied by a report from the contractor's auditors.

Results shown by the Annual Returns

(a) Summary

211. The results disclosed by the Annual Returns, analysed between risk and non-risk work, are as follows:—

*Set out in paragraph 79.

*Weighted Average Return on Capital
(historic cost basis)*

	<i>Risk work</i>	<i>Non-risk work</i>
	%	%
1979	20.3	16.0
1980	26.2	16.8
1981	27.0	15.1
Average 1979-81	25.0	15.9

212. In order to be able to make a fair comparison between the achieved rates of return and the target rates of return in the profit formula, we asked each contractor to analyse his results between (i) contracts priced, or expected to be priced, under the present profit formula (which came into effect in October 1977), and (ii) contracts priced under earlier profit formulae. As was to be expected, the proportion of the work done in the 1979-81 period which was priced under the pre-1977 formulae was very small and in the Board's judgment the overall results can fairly be compared with the target rates of return in the present profit formula — i.e. risk work 23 per cent and non-risk work 16 per cent.

(b) The CP/CE ratio

213. The assumed average CP/CE ratio is an important element in the structure of the profit formula: it is used to convert part of the target rate of return on capital into a percentage on cost. If the average CP/CE ratio assumed in the profit formula differs from the contractors' actual average, the profit formula will not deliver the intended rate of return on capital.

214. There have been problems ever since 1968 in keeping the CP/CE ratio that is assumed in the profit formula in line with the contractors' actual average CP/CE ratio. It has proved extremely difficult, working on the historic cost accounting basis, to obtain a reliable up-to-date estimate of the average CP/CE ratio statistic.

The latest complete CP/CE ratio statistics available to the MOD are two to three years old, due to the delays in the agreement of ratios with individual contractors; and neither the MOD nor the contractors have successfully developed means of forecasting CP/CE ratios. CP/CE ratios calculated on a historic cost accounting basis have in general been rising under the influence of inflation and the ratio assumed in the formula has tended to lag behind. In the ten years 1971-80 the assumed ratio was on average 0.41 below the actual ratio (1.72/1 compared with 2.13/1), which has tended to cause the rates of return on capital earned on Government contracts to exceed the profit formula targets.

215. This factor has affected the results which we now report for the years 1979-81. The CP/CE ratio assumed in the formula was 2.25/1; this had been established in 1980 on the basis of the latest information then available — the MOD's reported ratio for 1977 (2.13/1) together with a provisional indication of a slight increase in the ratio in 1978. The actual average ratio for 1979-81 was 2.62/1. This CP/CE ratio variance is an important factor in accounting for the difference between actual and target rates of return on capital in these three years.

216. The lessons to be learned are that the profit formula must be converted onto a semi-CCA basis (which will mean that CP/CE ratios will be less affected by changes in the rate of inflation); and that the critical data in the profit formula must be reviewed at more frequent intervals than in the past. Both these lessons are reflected in our recommendations in this report.

(c) Risk work

217. The reported average rate of return on capital for the three years was 25 per cent, compared with the target rate of 23 per cent. Of the variance of 2.0 percentage points, 1.5 is due to the increase in CP/CE ratios and 0.5 is due to other factors. This latter element represents a variance of approximately 0.2 per cent on costs, lower than in any previous review period. On this evidence we think it fair to conclude that the average profit achieved on risk work has, subject to the effect of the underestimate of the CP/CE ratio in the formula, been reasonably well in line with the prevailing formula rate.

218. The table set out below shows the variation between contractors' reported results and their target rates, with an equivalent analysis for the period 1975-78:—

Return on Capital on Risk Work
Variances between Reported Results and Target Rates

Percentage points above target rate:—	<i>Number of contractors</i>	
	1979-81	1975-78
more than 15	6	4
10 to 15	9	2
5 to 10	9	6
less than 5	9	10
	33	22
Percentage points below target rate:—		
less than 5	13	12
5 to 10	9	5
10 to 15	2	5
more than 15	11	5
	35	27

219. The foregoing table shows a greater spread in 1979-81 than was evident in 1975-78. Whereas the results of nearly half our sample of contractors fell within five percentage points on either side of the target during the period 1975-78, less than one-third of the sample reported results within that band during the period now under review. The table also discloses a marked rise in the percentage of contractors who have failed by more than 15 percentage points to achieve their target rate of return, namely from one-tenth in 1975-78 to one-sixth in 1979-81.

(d) Non-risk work

220. The average rate of return on capital for the three years was 15.9 per cent, compared with the target rate of 16 per cent. The effect of the increase in the

average CP/CE ratio amounted to 0.8 percentage points, leaving a residual variance of 0.9 percentage points equivalent to a variance of about 0.3 per cent on costs. This residual variance is smaller than that noted in the Board's last two Reports and can again be regarded as within acceptable limits.

221. The following table shows the variation between contractors' reported results and their target rates, with an equivalent analysis for the period 1975-78:—

Return on Capital on Non-risk Work
Variances between Reported Results and Target Rates

Percentage points above target rate:—	<i>Number of contractors</i>	
	1979-81	1975-78
more than 15	3	—
10 to 15	1	1
5 to 10	5	1
less than 5	16	9
	25	11
Percentage points below target rate:—		
less than 5	25	23
5 to 10	4	6
10 to 15	3	3
more than 15	5	4
	37	36

As might be expected, the results show a greater concentration around the target rate than is the case for risk work and indeed the major contractors all fall within a narrow band around the target rate. Nevertheless the table illustrates that contractors engaged in non-risk work can experience a range of returns.

Comparison with the Profitability of British Industry 1979-81

222. The official series of statistics on the profitability of U.K. manufacturing industry which formed the basis for the 1968 Profit Formula Agreement was discontinued in 1977. There are now no statistics available regarding rates of return on a true historic cost basis, comparable to the profit formula rates which applied in the years 1979-81.

223. Although directly comparable evidence is not available, there is little doubt that the rate of return on capital on non-competitive Government contracts over the years 1979-81 was appreciably higher than in manufacturing industry generally. To a small extent this was due to the factors discussed in paragraphs 213-221 above. But, in the main, the difference stemmed from the Board's recommendations in both 1977 and 1980 (which were accepted by the Government) that, as the profitability of British industry in the late 1970s had shrunk to levels incompatible with long-term viability, the target rate should be set at levels above that indicated by adherence to the comparability principle alone.

The Board wishes to express its warm appreciation to all those concerned for their valuable contribution to the preparation of this report and their considerable assistance in all aspects of our work — particularly Mr. James Scott, a partner in Messrs. Binder Hamlyn the Secretaries to the Board, and Mr. Basil Eckersley, the Legal Adviser to the Board.

JOHN GRENSIDE
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25th January, 1984.

APPENDIX A

THE PROFIT FORMULA AGREEMENT

PROFIT FORMULA REVIEW - ARRANGEMENTS AGREED WITH INDUSTRY TO BE APPLIED FROM 26th FEBRUARY 1968

Aim of the formula

1. The Chief Secretary informed the House of Commons on 26th February 1968 that the Government and industry had agreed that the aim of the formula to be applied to non-competitive Government contracts should be to give contractors a fair return on capital employed; that is to say, a return equal on average to the overall return earned by British industry. The yardstick which it has been agreed shall be used for the period up to the first general review (*see* paragraph 6 below) is the average of industry's earnings over the last seven years for which figures are available. These figures, which are derived from Board of Trade figures adjusted by the Monopolies Commission to the historic cost basis, are:

1960	16.6%
1961	14.0%
1962	12.6%
1963	13.5%
1964	14.7%
1965	13.9%
1966	12.0%

The unweighted average for the seven years 1960 to 1966 comes to 13.9%. This gives the yardstick of 14% on capital employed (that is, 13.9% rounded) to which the Chief Secretary referred in his statement.

2. The Government has expressed the view that in non-competitive Government contracts, the accounting conventions which it adopts for the purpose of computing capital employed and for determining what expenditure can properly be included in costs have the effect of yielding to contractors a higher return than would be the case if the accounting conventions employed by industry were adopted. The Government therefore wishes to adopt a lower figure than 14% when computing a return on capital employed based on the Government's accounting conventions. This view has not been accepted by industry and, as stated in paragraph 7 below, this matter is being referred for early decision to the Review Board for Government Contracts. As a compromise pending this decision, and without prejudice to the principle involved, a return on capital employed of 13½%, computed on the basis of the Government's accounting conventions, has been agreed for the purpose of pricing non-competitive Government contracts, and this memorandum is based on this figure.

Background to the new profit rates

3. The modified formula rates are based on the following points:
- (a) The 14% yardstick is to apply to risk and non-risk Government work taken together.
 - (b) There must be an adequate differential between the rates for risk work and those for non-risk work: it follows that the rate for risk work must be above the target and that for non-risk work below it.

- (c) The average Cost of Production : Capital Employed ratio for contractors engaged in profit formula work is $1\frac{1}{2}:1$.
- (d) Non-risk work is one-third of the total of profit formula work.
- (e) The existing Government accounting conventions are to remain in force.

At the end of three years all these points will be reviewed by the Board. Points (c) and (e) are to be reviewed before then.

New profit formula

4. A new profit formula, expressed in the terms of the Government's accounting conventions, will be applied to non-competitive Government contracts let on or after 26th February 1968. The new rates set out below will be applied to risk contracts priced under the new Standard Conditions and to non-risk work provided it is carried out after that date on contracts for which no arrangement for profit had then been agreed.

Risk work:

11% on capital employed plus 3% on cost, providing (on the basis of the $1\frac{1}{2}:1$ ratio referred to in paragraph 3(c) above) an average rate of 15% on capital employed.

Non-risk work:

8% on capital employed plus up to 3% on cost for efficiency, $1\frac{1}{2}\%$ being the intended average addition on cost. This provides (on the basis of the $1\frac{1}{2}:1$ ratio referred to in paragraph 3(c) above) an average return of 10% on capital employed.

For risk work the full 3% on cost will be allowed (see paragraph 13(d) below), whereas for non-risk work it is intended that half the efficiency allowance of 3% on cost should be allowed for average efficiency with up to the full 3% being given for more than average efficiency and the allowance reduced below $1\frac{1}{2}\%$ or withheld only when circumstances so warrant.

In converting the foregoing formula rates to the percentages on costs which are to be applied to the costs of individual contracts the rate on capital employed should be converted by the application of each contractor's ratio of capital employed to cost of production, computed on the basis used hitherto. For the information of contractors, illustrations are to be given by the C.B.I. in the form shown in the Appendix hereto.

The above rates replace the previous profit formula which was in force prior to 26th February 1968:

Risk work:

$7\frac{1}{2}\%$ on capital employed plus up to 4% on cost, with a ceiling on capital employed of 15%.

Non-risk work:

$7\frac{1}{2}\%$ on capital employed plus up to 2% on cost, with a ceiling on capital employed of 10%.

Contingencies

5. The Government and industry have agreed that under the new contract conditions providing for equality of information and post-costing it will still be necessary to include reasonable and justifiable contingency provisions in estimated costs for the purpose of fixing prices based on estimates. In order as far as possible to avoid both over-estimating and under-estimating contingency provisions, the following principles should be taken into account by both sides:

- (a) Equality of information and post-costing do not lessen the need for contractors to include reasonable contingency provisions in their price estimates, but increase the need for these provisions to be separately identified and justified by reference to previous experience, the length of the contract, its complexity, or

the degree of technical innovation involved.

- (b) It is intended that the prices negotiated should on average result in profits being earned at the rates set out in paragraph 4 above, and that higher rates should be achieved in contracts carried out with above average efficiency, but consistent over-provision for contingencies cannot be regarded as a legitimate means of attaining above average profits.
- (c) There may be occasions when a contingency provision openly declared and agreed at price fixing and accepted by reference either to the need for a similar provision in a comparable previous contract or to any of the reasons listed in (a) above turns out after post-costing to have been unnecessary in whole or in part. In such cases, the basic consideration is whether the nature of the contingency and the amount of the provision were fair and reasonable in the light of the information available to the two sides at price fixing.
- (d) If there is too much uncertainty to enable fair and reasonable prices to be fixed with appropriate contingency margins incorporated, the use of incentive contracts with profit sharing provisions should be considered.

Review

6. In order to review the effect of the new arrangements after they have been in operation for three years, it will be essential to review the evidence of industry's actual average earnings on Government non-competitive risk contracts and non-risk contracts so as to relate them to:

- (i) the aim that the formula should achieve the average earnings of 14% referred to above;
- (ii) the most recent appropriate evidence of the average earnings of British manufacturing industry.

For this purpose a Review Board for Government Contracts is to be established, comprising members nominated by the Government and by industry. Arrangements will be made for Government contractors to submit reports annually to the Board showing the average profits derived on non-competitive risk and non-risk Government contracts. At the end of three years the Board will conduct a comprehensive review of the formula and make recommendations to the Government. This review and subsequent reviews will consider both the target and the formula rates required to achieve it. The Board will not make available to the Government any of the contents of the reports received from individual firms, but the average results for all firms will be notified by the Board to the Government.

Interim Review

7. In addition to the comprehensive review mentioned above, which will be concerned with the level of profits actually achieved under the new formula, the Government and industry have agreed to accept the conclusions of the report which the Board will be required to make, not more than a year after it is set up, upon the following matters:

- (i) The difference of view between the Government and industry which is referred to in paragraph 2 above, and what consequential adjustment, if any, is needed to be made to the formula set out in paragraph 4 above so as to arrive at the agreed 14% target. If the Board decides that a change in profit rates in the formula set out in paragraph 4 above is required, then the profit rates will be adjusted prospectively either upwards or downwards for contracts placed after the date of the Board's decision and up to the date of the comprehensive review. Apart from any adjustments arising under this and the next three sub-paragraphs, no other adjustments to the profit rates will be made pending the full and comprehensive review referred to in paragraph 6 above.

- (ii) Whether a change is needed in the ratio of cost of production to capital employed of $1\frac{1}{3}:1$ which has been previously agreed (*see* paragraph 3(c) above).
- (iii) Whether certain costs which are at present not accepted as charges to Government contracts should in future be so accepted, and whether the allowances for depreciation included in costs should be based on the depreciation charges made by contractors in their accounts instead of by reference to Inland Revenue rates.
- (iv) Whether any, and if so what, change should be made in the treatment of (a) investment grants for the purposes of assessing the capital employed by Government contractors and (b) investment grants and other selective incentives for the purposes of overheads—if the discussions which have already been started between industry and the Treasury have not resolved this problem.

Excessive profits and unconscionable losses on risk contracts

8. Since it is not practicable to define a level at which profit automatically becomes excessive or loss unconscionable, owing to widely varying circumstances from case to case, it has been agreed that the Review Board should consider individual contracts referred to it by either side where the profit made comes to 27½% or more on capital employed, or the loss on capital employed comes to 15% or more. These figures do not themselves involve a presumption of reimbursement. But in such cases, or in exceptional cases within these percentages where either side considers that the achievement of a fair and reasonable price was frustrated because the information on which it was based has proved to be materially inaccurate or incomplete, it will be for the Board to determine the level of any reimbursement by or to the contractor. All risk contracts will in future contain a clause binding both parties to accept the decision of the Board.

Equality of information and post-costing

9. Risk contracts placed on or after 26th February 1968 will incorporate new contractual conditions giving the Government the right to equality of information and post-costing of individual contracts. Equality of information will be provided for in a new version of Standard Condition No. 43, "Condition No. 43—Price Fixing (revised July 1968)", of Form CCC/Stores/1, and post-costing will be covered in a Standard Condition, "Condition No. 48—Availability of Information" to be inserted in Form CCC/Stores/1. It is intended that as a result of equality of information the Government and the contractor will be in the same position at the time the price is fixed. The Government will not normally expect more information from a contractor than is available to him up to the time of fixing the price. The Government must have access to information adequate for price fixing purposes. In general, this will be information from the contractor's normal accounting system. The Government will therefore limit any demand for further information to what can reasonably be shown to be necessary for price fixing purposes.

Use of Standard Conditions

10. S.C.43 1968 edition will be used where prices have not been agreed at the time the contract is made whenever it is the intention to negotiate an incentive price arrangement, including a fixed price, as soon as practicable.

S.C.48 may be used

- (i) in conjunction with S.C.43 or
- (ii) in contracts on which fixed prices were agreed at the time the contract was made, except in the following circumstances:
 - (a) where the price had been determined as a result of competitive tendering;
 - (b) for purchase of proprietary articles for which a competitive general market price exists;

- (c) in contracts of small value. The minimum of £25,000 for sub-contracts is an indication of this intention, but it is not possible to define small value for all contracts: it must depend on the circumstances of the contract.

This can only be a general statement and cannot cover all situations which vary with individual contracts. A combination of circumstances may occur in one contract requiring individual consideration. Since it will often be impossible to foresee future circumstances, it will be usual to include S.C.48 in all contracts except those specified at (a), (b), and (c) above and also except in contracts containing S.C.54 or Form 6/77. In any case, the inclusion of the conditions in any particular contract remains a matter of negotiation between the parties.

Exercise of post-costing rights

11. The post-costing rights under S.C.48 will be exercised for the following purposes only:

- (a) In pricing follow-on contracts, as an essential element in equality of information.
- (b) To enable departments to check the accuracy of their estimating procedures.
- (c) To provide the information for a selective scrutiny of the outcome of particular contracts so that reference may be made by either side to the Review Board.

It does not necessarily follow that the right to post-cost must always be exercised whenever this condition is included in the terms of a contract; there should be selectivity, so that no undue burden is placed either on departments or on contractors.

Transitional arrangements for risk contracts

12. (a) Contracts placed but not priced before 26th February 1968.

Departments are authorised to use the new risk rates on contracts placed before 26th February 1968 but unpriced at that date, provided that they are satisfied that the contractor has voluntarily given access to equality of information within the terms of the revised Standard Condition 43 in Form CCC/Stores/1.

(b) Follow-on contracts placed on or after 26th February 1968.

If the contractor is prepared to volunteer post-costing information on the previous contract (to be used solely to establish the new price, not to judge the profit on the previous price), it would be possible to fix the price for the follow-on contract early. If the contractor is not prepared to concede voluntary post-costing information, departments may not find it possible to fix prices early and may have to issue an "Instruction to Proceed" incorporating the revised S.C.43.

General provisions

13. (a) Both the Government and industry attach considerable importance to the need to fix prices as early as practicable. Where there is unreasonable delay in fixing prices, there will in the last resort be a right of appeal to Ministers by contractors.

(b) In all cases where pricing is possible in advance of work, fixed prices (or incentive target price arrangements) should be used. In other cases fixed or incentive target prices should be negotiated as soon as practicable.

(c) Cost plus arrangements with the non-risk rates, which have disadvantages in lack of incentive to both sides, should be reserved for those contracts where there is no alternative. The non-risk rate is applicable only to cost plus contracts and for negotiating the fee in cost plus fixed fee for profit. Cost plus contracts subject to a maximum price are risk contracts.

(d) It is the intention to identify risk contracts at the time when instructions are given to proceed and, having made the initial decision to price on estimates, not to vary the allowance for risk because of delays in agreeing prices.

Effective date of future adjustments to the profit formula

14. The Government and industry have agreed that if adjustments of the profit formula rates upwards or downwards are required after future reviews, including the interim review, these adjustments should be applied in the same way to contracts which are not complete in the sense that the price has not been fixed. Adjustments would therefore apply to:

- (a) risk contracts where no price arrangement has been agreed on the date the adjustments take effect;
- (b) non-risk work carried out after that date for which no arrangement for profit has been agreed by that date.

APPENDIX B

THE 1968 MEMORANDUM OF AGREEMENT

Memorandum of Agreement between Her Majesty's Government and the Confederation of British Industry covering the establishment of the Review Board for Government Contracts, its functions, and related matters.

The Background

1. On 26th February, 1968, the Chief Secretary, H.M. Treasury, announced to Parliament that the Government had reached agreement with industry on new arrangements for placing and pricing the non-competitive Government contracts covered by the existing profit formula. He stated:—

“The Government and industry have agreed that the aim of the formula should be to give contractors a fair return on capital employed; that is to say equal on average to the overall return earned by British industry in recent years. The yardstick will be the average of industry's earnings over the last seven years for which figures are available — 1960 to 1966. This gives a figure of 14 per cent on capital employed . . .

“The Government recognise the importance of fair profits for their contractors . . . and accept the view that fixed prices freely negotiated should in general not be retrospectively modified . . . Nevertheless, arrangements must be made to deal with excessive profits, given that there is no competitive check on the agreed prices . . .

“Agreement has been reached on a proposal to set up an impartial Review Board, and to secure acceptance of its rulings by a new contract condition. Both sides could refer contracts where profits of 27½ per cent or more on capital employed and losses of 15 per cent or more had been made, to establish whether any reimbursement or compensation was justified. In exceptional cases, the Board might review contracts referred to it by either side within these percentages, where there was evidence that prices had not been fair and reasonable.

“In addition to reviewing individual contracts and giving rulings which both sides would agree in advance to accept, the Review Board would also be given the task of collating the evidence for a review of average earnings on contracts. For this purpose, the Review Board would act in an advisory capacity. A review after three years, which could relate actual earnings on this work to the latest trends in overall average earnings of British Industry, would be in the interests of both sides.”

2. It was subsequently agreed between the Government and the Confederation of British Industry (from now on in this paper called the C.B.I.) that the Review Board should also carry out an Interim Review on certain topics. The Annex to this paper deals with this Review.

3. This paper sets out the terms of agreement reached between the Government and the C.B.I. covering the establishment of the Review Board, its functions, and related matters.

Establishment and Administrative Arrangements

4. The Board shall be known as “The Review Board for Government Contracts”—from now on in this paper called the Review Board. It shall be independent of both the Government and industry.

5. (a) The Review Board shall consist of a Chairman and four other Members.

(b) The Treasury and the C.B.I. shall each nominate two independent candidates for appointment as Members, and shall consult each other to ensure that both these nominations and also the nomination for the Chairmanship are acceptable to both parties.

- (c) The Treasury shall appoint the Chairman and other Members. Subject to (d) and (e) below these appointments shall be for a period of not less than three and not more than five years. These appointments may be renewed.
- (d) Appointments may be terminated by the Treasury after consultation with the C.B.I.
- (e) Members may resign at any time by giving notice in writing to the Treasury.
- (f) Casual vacancies, caused for example by resignation, shall be filled after consultation between the two parties as provided in (b) above.

6. The Secretariat necessary to service the Review Board shall, unless and until the Review Board shall recommend otherwise, be provided by the engagement of a firm of professional accountants, whose terms of appointment and terms of reference shall be determined by agreement between the Review Board, the Government and the C.B.I. If the Review Board recommends that it should employ other professional advice or staff of its own, the number, pay and conditions of these staff shall also be determined by agreement between the said three parties.

7. The arrangements for accommodating the Review Board and supporting staff shall be agreed between the Review Board, the Government and the C.B.I.

8. The Government shall determine, after consultation with the C.B.I., the remuneration of the Chairman and other Members of the Review Board.

Costs

9. The arrangements for meeting the running costs of the Review Board will be determined by agreement between the Treasury and the C.B.I. in consultation when appropriate with the Review Board.

10. Costs incurred by Government departments, by contractors or by sub-contractors arising from reference of individual contracts or sub-contracts to the Review Board shall lie where they fall and those incurred by contractors or sub-contractors will be regarded as allowable costs in arriving at overhead rates.

Procedure

11. Subject to the arrangements set out below and agreed between the Treasury and the C.B.I. as necessary for the review of individual contracts and sub-contracts and for the general review, the Review Board shall determine its own procedures and all other matters not otherwise provided for in this paper.

Government Accounting Conventions

12. The evidence to be submitted by Departments, contractors and sub-contractors for the review of individual contracts or sub-contracts and by the Government and industry for the general review shall be computed in accordance with the Government's accounting conventions. For individual contracts and sub-contracts the relevant conventions shall be those used in the pricing. If, as a result of the Interim Review by the Review Board, or discussions between the Government and the C.B.I. adjustments are made to the conventions, such adjustments will be reflected in the annual returns as from a date agreed by the Government and the C.B.I.

Functions — Review of Individual Contracts and Sub-Contracts

13. In fulfilling its function of reviewing and giving rulings on individual contracts and sub-contracts, the Review Board will consider only Government profit formula risk contracts or sub-contracts, and further will consider only such contracts or sub-contracts as may be referred to it in accordance with the provisions of paragraphs 15, 16 and 17 of this paper. When a reference is made to it, the Review Board shall assess whether the price negotiated was fair and reasonable, and in the light of this assessment determine whether any payment should be made by one of the two parties to the reference to the other and, if so, how much.

14. For the purpose of interpreting the general direction given in paragraph 13 above and subject to the provisions of paragraphs 15, 16 and 17 below:—

- (a) Government profit formula risk contracts comprise those contracts placed with contractors by Government departments which:—
 - (i) incorporate a condition (normally Standard Condition 48 in Form CCC/Stores/1) covering availability of information and requiring the contractor to provide information to the department on request in connection with post-costing investigation of the contract; and
 - (ii) include in the price an allowance for profit calculated at the rate for the time being applicable to risk work, that is to say at the rates set out in paragraph 4 of the Treasury's paper entitled "Profit Formula Review—Arrangements agreed with industry to be applied from 26th February, 1968", or any such variation of that rate as may be determined in accordance with paragraphs 6 and 7 (i) of that paper.*
- (b) Government profit formula risk sub-contracts comprise sub-contracts placed by contractors for the purpose of and in connection with their own fulfilment of Government profit formula risk contracts, and such other sub-contracts as may be specified by the department under the terms of any contract. Sub-contracts placed by acceptance of the lowest competitive tender, or to which the non-risk rate of profit applies under sub-paragraph 13(c) of the Treasury's paper referred to in sub-paragraph (a)(ii) above, are not Government profit formula risk sub-contracts.

15. Government profit formula risk contracts will incorporate a condition (normally Standard Condition 50 in Form CCC/Stores/1) covering reference of the contract to the Review Board in certain specified circumstances: such a reference may be made either by the Government department or by the contractor or jointly by both these parties to the contract. Government profit formula risk sub-contracts of a value exceeding £100,000 (or on occasion of a lower value) may incorporate a similar condition: if so, the sub-contract may be referred to the Review Board either by the Government department concerned in the related main contract or by the sub-contractor or jointly by both.

16. A contract or sub-contract incorporating a condition such as is mentioned in paragraph 15 above may be referred to the Review Board by any party entitled to make such a reference if it appears from post-costing that a profit of or exceeding 27½ per cent on capital employed or a loss of or exceeding 15 per cent on capital employed has been made on the contract or sub-contract in question. These figures do not of themselves involve any presumption of whether any payment should be made by one of the two parties to the reference to the other; it is not practicable to define a level at which profit automatically becomes excessive or loss unconscionable.

*This amendment to the original text of paragraph 14(a)(ii) was agreed between the Government and Confederation of British Industry on 14th September, 1971.

17. In exceptional cases, although the profit or loss made by the contractor or sub-contractor was not such as to justify a reference under the terms of paragraph 16 above, any party entitled to make a reference may do so if it considers that the achievement of a fair and reasonable price was frustrated because the information on which it was based has proved to be materially inaccurate or incomplete.

18. For the purposes of paragraphs 13, 15, 16 and 17 above and for acting upon the provisions in the conditions in contracts and sub-contracts which relate to making references to the Review Board, notice of a reference to the Review Board shall have effect only on and from the date on which it is received by the Review Board's Secretariat and also only if:—

- (a) the notice is in writing, identifying the parties to the reference, the contract or sub-contract being referred, and the specific circumstances which have occasioned the reference; and
- (b) except when the reference is made jointly by both the Government department on the one hand and the contractor or sub-contractor as the case may be on the other hand, the party making the reference has simultaneously sent a copy of the notice to the other party to the reference.

19. In considering any reference to it of an individual contract or sub-contract, the Review Board shall have especial regard to:—

- (a) the information available to the department, and to the contractor or the sub-contractor as the case may be, when the price was fixed; and
- (b) the standard of efficiency with which the contract or sub-contract was performed.

20. Either party to a reference or both parties jointly may bring further considerations to the attention of the Review Board if these could in their view have a bearing on its deliberations. Relevant considerations might include for example:—

- (a) the degree of risk involved in performing the contract or sub-contract;
- (b) the record of profits achieved or losses sustained by the contractor or sub-contractor on Government profit formula work over recent years;
- (c) in references of sub-contracts by the department or the sub-contractor, respective responsibilities of the department, the contractor and the sub-contractor for the situation leading to the reference.

21. In connection with a reference to it of an individual contract or sub-contract, the Review Board may have occasion to consider a contingency provision which had turned out after post-costing to have been unnecessary in whole or in part. The Review Board shall examine such a provision only from the aspect of the situation at the time of price fixing and in doing so shall have especial regard to:—

- (a) whether the contingency provision was openly declared and agreed at price fixing and accepted then by reference either to the need for a similar provision in a comparable previous contract or to previous experience or the length or complexity of the contract or the degree of technical innovation involved in the performance of the contract; and
- (b) whether the nature of the contingency and the amount of the provision were fair and reasonable in the light of the information available to the two sides at price fixing.

22. The Treasury and the C.B.I. have agreed the following framework, within which the Review Board would determine its own procedures, for the reference to the Review Board of individual contracts and sub-contracts:—

- (a) The two parties to a reference shall present their evidence in writing to the Review Board and make it available to the other party. The Review Board shall decide whether it wishes the two parties to present further evidence whether written or oral, and whether it wishes to call for evidence from the main contractor on a sub-contract under reference, or from a sub-contractor when a main contract is under reference.
- (b) References of individual contracts or sub-contracts may be examined and determined by the Chairman and two other members only one being a Member nominated by the Treasury and the other a Member nominated by the C.B.I.
- (c) The Review Board shall give its decision on a reference in a written report signed by the Chairman to the parties to the reference. A copy shall be made available to the Treasury. In the event of disagreement between the other Members as to the quantum of an award, the Chairman's decision shall prevail. If any decision is not unanimous this shall not be revealed.
- (d) The Review Board shall publish an annual report on its work. Decisions on all individual cases referred to it shall be included, with an assessment of the general considerations (in particular those listed in paragraph 19 above) which led to these decisions. The Review Board will not be obliged to publish the names of the contractors or sub-contractors concerned in these decisions. If the Review Board decides in any particular case to identify the parties to the reference, it shall inform them of this decision in advance of publication of the annual report.

23. It will at all times remain open to Government departments and contractors/sub-contractors to agree to settle between them in any way any matter arising out of a contract/sub-contract which could be or has been referred as provided above to the Review Board. Whenever such a settlement is agreed upon, whether or not a reference has already been made to the Review Board and whether or not the terms of the settlement involve payment, any party to the settlement may report its terms to the Review Board for information. Any such report will, unless the parties to the settlement agree otherwise, be confined to statements of fact and will whenever possible be in a form agreed between the parties as part of the terms of the settlement.

Functions—The General Review

24. The Government and the C.B.I. have agreed that the Review Board shall carry out a general review which shall cover:—

- (a) Industry's overall average earnings in the period 1st January, 1969 to 31st December, 1971 (based on contractors' annual accounts for the three financial years ending in that period), and at three-yearly intervals thereafter, on Government contracts to which the revised Profit Formula referred to in paragraph 1 above applies, taking risk contracts and non-risk contracts separately.
- (b) The revised Profit Formula referred to in paragraph 1 above (or the Profit Formula as further revised in the light of any subsequent modifications) in order to ascertain whether its use has achieved:—
 - (i) the general intention of giving overall average earnings on Government profit formula work equivalent to the overall average earnings of manufacturing industry on its other work, on the assumption that the necessary statistics on the latter can be made available to the Review Board to enable the appropriate comparison to be made;
 - (ii) the specific aim for the period under review which the profit formula rates in force at the time of the review are intended to achieve (for the period up to the first review the agreed yardstick is a figure of 14 per cent on capital employed).

This review—from now on in this paper called the general review—will result in a written report from the Review Board to the Treasury, containing its recommendations for future action. The report will be made simultaneously available to the C.B.I. for consideration by industry. The Government and the C.B.I. have agreed that the report will form the basis for discussion between them.

25. It is the intention of the Treasury and the C.B.I. that the following information, required to enable it carry out the general review, should be made available to the Review Board:—

- (a) Annual returns from contractors selected by the Review Board accompanied by a copy of their audited financial accounts. (Departments will disclose the pattern of the contracts they place with the contractors engaged in profit formula work in the form and detail required by the Review Board to enable it to obtain adequate coverage of the field in determining those contractors from whom such reports will be required. The names of these contractors will then be passed to the C.B.I. which, in conjunction with the trade associations concerned, will use its best endeavours to ensure that each contractor provides the Review Board with an annual return to enable the general review to be carried out.)
- (b) These annual returns, made out in the form required by the Review Board, shall be accompanied by a report from the contractor's auditors and shall comprise:—
 - (i) A statement, analysing the financial accounts figures for sales, cost of sales and profit or loss (expressed as a percentage on cost of sales) under the following headings:—
 - A. Government profit formula work priced under the new arrangements, divided between work which incorporates:—
 - (1) the risk rates of profit; and
 - (2) the non-risk rates of profit.
 - B. Other work.
 - (ii) If it is not apparent on the return, a reconciliation of the figures on the statement with the audited financial accounts.
 - (iii) A statement showing the total of adjustments in respect of contracts invoiced in prior years.
 - (iv) A statement on the adjustments made to the figures on the return in order to comply with Government accounting conventions.
 - (v) A statement showing the overall average ratio of cost of production to capital employed (CP/CE ratio) in the year, as computed for purpose of Government contracts, confirming that they have been agreed with the Government departments concerned, or recording that the figures have not been agreed or that items are in dispute.
 - (vi) A statement showing the basis on which apportionments have been made in the annual return as between Government profit formula risk contracts and non-risk contracts and other work.

(Notes for the guidance of contractors in completing their annual returns will, in due course, be agreed between the Review Board, the Government and the C.B.I.)

26. The Review Board will, on the basis of these annual returns, provide the Government with annual reports setting out the overall average percentage of profit related to average capital employed divided as between risk and non-risk contracts for the contractors furnishing returns; no return so made by any individual contractor will be made available in any way to any Government department.

27. The Review Board shall, on the basis of these annual returns and its annual reports to

the Treasury based on these returns, review the Government profit formula at three-yearly intervals. In conducting these general reviews the Review Board may take account not only of the submissions made to it by the Government and those organisations representing industry generally or any particular industry but also of any representations made to it by any person or body it wishes to consult. The Review Board, taking account of the effect of the Government's accounting conventions, shall then advise whether:—

- (a) the Profit Formula has achieved its agreed objective for the three years under review in the light of the evidence of actual earnings on Government profit formula work, both risk and non-risk;
- (b) the agreed objective requires any modification;
- (c) the Profit Formula rates for risk and non-risk work require modification for the next three years in the light of its advice on (a) and (b) above.

APPENDIX C

THE PROFIT FORMULA — ILLUSTRATIONS

The attached Annexes illustrate the workings and structure of the profit formula for non-competitive Government contracts:—

Annex I	Illustration of the Application of the Recommended Profit Formula to a Risk Contract.
Annex II	The Structure of the Profit Formula (a) Present Formula (historic cost basis) (b) Recommended Formula (semi-CCA basis) (c) Suggested Transitional Formula (historic cost basis)
Annex III	Profit Rates for Contractors with various CP/CE Ratios.

APPENDIX C: ANNEX I

ILLUSTRATION OF THE APPLICATION OF THE RECOMMENDED PROFIT FORMULA TO A RISK CONTRACT

Estimated cost of production	£100,000
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Calculation of contractor's CP/CE ratio:

Total annual cost of production	£12,000,000
Total capital employed (semi-CCA basis)	£5,000,000
CP/CE ratio is therefore	2.4/1

Profit formula for risk work	6% on capital and 3% on cost
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Adopting the CP/CE ratio of 2.4/1	$6\% \text{ on capital} = \frac{6}{2.4} = 2.5\% \text{ on cost}$
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Profit allowance on cost of production is therefore	$2.5\% \text{ plus } 3\% = 5.5\%$
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Contract price would thus be	£100,000 (estimated cost) plus 5.5% profit thereon = £105,500.
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APPENDIX C: ANNEX II

THE STRUCTURE OF THE PROFIT FORMULA

		<i>Present Formula</i>	<i>Recommended Formula</i>	<i>Suggested Transitional Formula</i>
		<i>Historic cost basis (a)</i>	<i>Semi-CCA basis (b)</i>	<i>Historic cost basis (c)</i>
Risk contracts				
Capital-based profit element	A	14.0%	6.0%	8.5%
Cost-based profit element	B	4.0%	3.0%	3.2%
Average CP/CE ratio	C	2.25/1	2.00/1	2.62/1
Cost-based profit element, expressed as profit on capital employed ($B \times C$) . . .	D	9.0%	6.0%	8.4%
Total profit on capital employed ($A + D$) . .	E	23.0%	12.0%	16.9%
Total profit on cost of production ($E \div C$) .	F	10.2%	6.0%	6.4%
Non-risk contracts				
Capital-based profit element	G	11.5%	4.6%	6.5%
Cost-based profit element				
Fixed element	H	0.5%	2.3%	2.5%
Efficiency allowance (average)	I	1.5%	—	—
Total ($H + I$)	J	2.0%	2.3%	2.5%
Average CP/CE ratio	K	2.25/1	2.00/1	2.62/1
Cost-based profit element, expressed as profit on capital employed ($J \times K$) . . .	L	4.5%	4.6%	6.6%
Total profit on capital employed ($G + L$) . .	M	16.0%	9.2%	13.1%
Total profit on cost of production ($M \div K$) .	N	7.1%	4.6%	5.0%
All contracts				
Proportion of risk to non-risk contracts . .	O	1.5 to 1	1.75 to 1	1.75 to 1
Weighted average profit on capital employed .	P	20.2%	11.0%	15.5%
Weighted average profit on cost of production	Q	9.0%	5.5%	5.9%
Statistics				
Weighting on capital				
Risk contracts ($A \div E$)	R	60.9%	50.0%	50.3%
Non-risk contracts ($G \div M$)	S	71.9%	50.0%	49.6%
Differential between risk and non-risk profits				
Profit on capital employed ($E - M$) . . .	T	7.0%	2.8%	3.8%
As percentage of non-risk rate ($T \div M$) .	U	43.7%	30.4%	29.0%
Average efficiency allowance (non-risk) Expressed as profit on capital ($I \times K$) . .	V	3.4%	—	—
Percentage of total non-risk profit ($V \div M$)	W	21.1%	—	—

APPENDIX C: ANNEX III

PROFIT RATES FOR CONTRACTORS WITH VARIOUS CP/CE RATIOS

(based on the recommended profit formula, on a semi-CCA basis)

	<i>CP/CE ratio</i>			
	1/1 %	2/1 %	3/1 %	4/1 %
<i>Risk contracts</i>				
Total profit				
as percentage of capital employed	9.0	12.0	15.0	18.0
as percentage of cost of production	9.0	6.0	5.0	4.5
<i>Non-risk contracts</i>				
Total profit				
as percentage of capital employed	6.9	9.2	11.5	13.8
as percentage of cost of production	6.9	4.6	3.8	3.5
<i>All contracts</i>				
(Assuming mix of 1.75 to 1)				
Total profit				
as percentage of capital employed	8.2	11.0	13.7	16.5
as percentage of cost of production	8.2	5.5	4.6	4.1

(Figures have been rounded to one decimal place).

APPENDIX D

RECOMMENDED REVISION OF THE ACCOUNTING CONVENTIONS FOR NON-COMPETITIVE GOVERNMENT CONTRACTS

STATEMENT OF ACCOUNTING CONVENTIONS FOR NON-COMPETITIVE GOVERNMENT CONTRACTS APPLICABLE FROM (date to be agreed)

Overhead Costs Attributable to Government Work

1. In assessing contractors' claims for overhead costs on non-competitive Government work current practice is to make the following adjustments:

(A) Items which are normally totally excluded:

1. Generally, any expenditure of a capital nature, any general reserves not allowable for tax purposes and any distributions of profit.
2. The cost of raising and servicing capital, including short-term financing, as the capital so raised is serviced out of profit.
3. Bad debts and any provision therefor, unless they arise on Government sub-contracts.
4. Discounts allowed on sales, which are treated as abatements of selling prices.
5. Insurance of credit and goods in transit and any other related to civil work risks for which cover is not required in the case of Government work.
6. Agents' commissions. These are regarded as charges recoverable against the particular civil sales that result from these expenses.
7. Outward carriage of finished products. Most Government contracts are priced ex-works: in other cases the cost of delivery would be directly charged.

**STATEMENT OF GOVERNMENT ACCOUNTING CONVENTIONS
APPLICABLE FROM 1st AUGUST, 1970 AS AMENDED WITH
EFFECT FROM 30th JUNE, 1971**

Overhead Costs Attributable to Government Work

1. In assessing contractors' claims for overhead costs on non-competitive Government work current practice is broadly:

(A) To accept in overheads:

1. Costs specifically identifiable to Government work, and
2. Costs which apply generally to both Government and non-Government work adjusted if necessary to correct any disproportionate incidence on such work.

(B) To exclude from overheads:

1. Costs identifiable to non-Government work alone, and
2. Certain costs which for taxation purposes are treated as 'capital' or not allowable, or which are not regarded as incident in the same periods as allowable for taxation purposes.

2. Accordingly, adjustments may be made to contractors' claims for overheads as follows:

(A) Items which are normally totally excluded:

1. Generally, any expenditure of a capital nature, general reserves and other items to the extent that they are not allowable for tax purposes e.g. subscriptions and donations, employees' profit sharing schemes.
2. The cost of raising and servicing capital, including short-term financing, as the capital so raised is serviced out of profit.
3. Pooling levies or other arrangements of a similar nature.
4. Bad debts and any reserve therefor, as these do not arise on Government contracts.
5. Discounts allowed on sales, which are treated as abatements of selling prices.
6. Insurance of credit and goods in transit and any other related to civil work risks for which cover is not required in the case of Government work.
7. Agents' commissions. These are regarded as charges recoverable against the particular civil sales that result from these expenses.
8. Outward carriage (of finished products). Most Government contracts are priced ex-works: in other cases the cost of delivery would be directly charged.

8. After Sales Service (where attributable to a specific product).
 9. Notional transactions.
 10. Unnecessary, extravagant or wasteful outlays (the contractor is entitled to a full written explanation on the exclusion of this type of expenditure). In cases where only a small proportion of a contractor's turnover is made up of non-competitive Government contracts, there is a presumption that all expenses are reasonably incurred.
 11. Loss of profits insurance (profit element only).
 12. Royalties and licence fees where these can be identified as direct costs.
 13. Costs related to assets excluded from capital employed in accordance with 4(A)1 below.
 14. Subscriptions and donations of a political nature.
- (B) Items which may be partially excluded:

1. Compensation payments of an abnormal nature. If substantial, yet admissible, some forward spread may be necessary.
2. Lump sum additions to pension schemes: generally allowed on the Inland Revenue basis (but spread over a number of years if substantial).
3. Research and Development is dealt with in accordance with a Guidance Document agreed between the Government and the Confederation of British Industry (Annex I to this Appendix).
4. Marketing and selling expenses (including salaried salesmen's commissions):

(a) Items listed at 1(A)3 to 8 above are types of cost which are commonly classed as marketing and selling expenses and which should be charged direct to particular contracts and thus generally excluded from attributable costs.

(b) All contractors should classify their marketing and selling expenses, as far as possible, in the same way. The precise degree of analysis required will vary from contractor to contractor and the details should be agreed with the Department concerned, but the following general classification is recommended:

(i) Market research and advertising (of all kinds including exhibitions etc).

(ii) Selling expenses, analysed under —

(a) Salaries and commissions (to staff) and retainers (to agents).

(b) Overheads (direct and administrative).

(c) Travelling expenses and entertainment.

9. After Sales Service (where attributable to a specific product).
10. Notional transactions: e.g. rental charge for property owned.
11. Unnecessary, extravagant or wasteful outlays* (the contractor is entitled to a full explanation on the exclusion of this type of expenditure).
12. Loss of profits insurance (profit element only).
13. Royalties and licence fees: but these may in certain circumstances be admitted as an item of direct cost and separately identified.
14. Maintenance and associated costs of idle fixed assets excluded from capital employed (see 5(A) 1(e) and (f) below).

(B) Items which may be partially excluded:

1. Entertainment expenses (see 6 below).
2. Advertising of a 'goodwill' nature.
3. Compensation payments of an abnormal nature. If substantial, yet admissible, some forward spread may be necessary.
4. Lump sum additions to pension schemes: generally allowed on the Inland Revenue basis (but spread over a number of years if substantial).
5. Research and Development: dependent upon the circumstances in each case and the extent to which the Government place direct contracts for R & D work and the nature of those contracts.
6. Marketing and selling expenses (including salaried salesmen's commissions):
 - (a) The following revised procedure for dealing with marketing and selling expenses became operative for a contractor's financial year commencing after 29th June, 1971. Items listed at 2(A) 4 to 9 above are types of cost which are commonly classed as marketing and selling expenses and which should be charged direct to particular contracts and thus generally excluded from attributable costs.
 - (b) All contractors should classify their marketing and selling expenses, as far as possible, in the same way. The precise degree of analysis required will vary from contractor to contractor and the details should be agreed with the Department concerned, but the following general classification is recommended:
 - (i) Market research and advertising (of all kinds including exhibitions etc).
 - (ii) Selling expenses, analysed under —
 - (a) Salaries and commissions (to staff) and retainers (to agents).
 - (b) Overheads (direct and administrative).
 - (c) Travelling expenses and entertainment.

*In cases where only a small proportion of a contractor's turnover is made up of non-competitive Government contracts, there is a presumption that all expenses are reasonably incurred.

(iii) Technical and liaison, analysed under —

- (a) Salaries and commissions (to staff).
- (b) Overheads (direct and administrative).
- (c) Travelling expenses and entertainment.

Where appropriate, expenses should include associated overheads. Where a Group has a separate company or companies for the purpose, *inter alia*, of marketing products at home or abroad, the relevant marketing and selling expenses of such company or companies should be taken into account in arriving at the total expenses for which analysis is required.

- (c) As far as possible each of these categories of expenses should be identified to, and allocated to, appropriate product groups, except in those particular cases where it is realistic and appropriate to identify and allocate them to specific products. One or other such method of allocation should be practicable at least for a substantial proportion of the total expenditure, and any small proportion that cannot be so allocated should be susceptible to apportionment on an appropriate basis. The criteria that will determine the way in which the allocation or apportionment of any particular item of expense is to be made will depend on the facts of each case. The aim should be to ensure that the share of the total expenses borne by each product group or product fairly reflects the correct incidence of costs falling on the product groups or products which the expenditure was designed to benefit. What will constitute appropriate product groups or products must likewise depend upon the circumstances. Groupings as already established for his own purposes by a particular contractor and a contractor's established practices should be disturbed only when this is necessary to achieve a fair result.
- (d) Subject to the Department concerned being satisfied, having regard to all the circumstances, (i) that the method of classification, allocation and apportionment of expenses adopted by the contractor is fair and reasonable, and (ii) that no part of the expenses was unreasonably incurred, the full amount of the marketing and selling expenses charged should be accepted in calculating the overhead rate applicable, for Government pricing purposes, to each product group or product as the case may be.

(iii) Technical and liaison, analysed under —

- (a) Salaries and commissions (to staff).
- (b) Overheads (direct and administrative).
- (c) Travelling expenses and entertainment.

Where appropriate, expenses should include associated overheads. Where a Group has a separate company or companies for the purpose, *inter alia*, of marketing products at home or abroad, the relevant marketing and selling expenses of such company or companies should be taken into account in arriving at the total expenses for which analysis is required.

- (c) As far as possible each of these categories of expenses should be identified to, and allocated to, appropriate product groups, except in those particular cases where it is realistic and appropriate to identify and allocate them to specific products. One or other such method of allocation should be practicable at least for a substantial proportion of the total expenditure, and any small proportion that cannot be so allocated should be susceptible to apportionment on an appropriate basis. The criteria that will determine the way in which the allocation or apportionment of any particular item of expense is to be made will depend on the facts of each case. The aim should be to ensure that the share of the total expenses borne by each product group or product fairly reflects the correct incidence of costs falling on the product groups or products which the expenditure was designed to benefit. What will constitute appropriate product groups or products must likewise depend upon the circumstances. Groupings as already established for his own purposes by a particular contractor may not always be found appropriate in the present context, but contractors' established practices should be disturbed only when this is necessary to achieve a fair result.
- (d) Subject to the Department concerned being satisfied, having regard to all the circumstances, (i) that the method of classification, allocation and apportionment of expenses adopted by the contractor is fair and reasonable, and (ii) that no part of the expenses was unreasonably incurred, the full amount of the marketing and selling expenses charged should be accepted in calculating the overhead rate applicable, for Government pricing purposes, to each product group or product as the case may be.
- (e) The Department concerned should normally accept that the relevant expenses were reasonably incurred:—
 - (i) in the case where only a small proportion of a contractor's turnover in respect of the relevant product group or product is made up of non-competitive Government contracts.
 - (ii) in any other case, unless it were to consider that the inclusion of any expense would be inconsistent with the Government's existing practice (which is not confined to marketing and selling expenses) of excluding from attributable costs anything that is unnecessary, extravagant or wasteful.
- (f) If a Department proposes to disallow any item of expense the contractor should be entitled to a full explanation of the reasons for the proposed disallowance.

5. Intra-group charges may be partially disallowed to the extent that they exceed actual costs incurred by the group, including depreciation on revalued assets.

(C) Items treated as reducing overhead costs:—

1. Credits, grants or refunds generally, in relation both to overhead items and also to direct cost items where the credit cannot be identified to a particular contract.
2. Shipbuilders' relief, which will however continue to be treated as a direct credit to the contract price.

(D) Other items:

1. The amount to be included for depreciation should exclude backlog and be calculated at the contractor's own rates, provided they are consistent, reasonable, and relate to the fixed asset values included in capital employed. The depreciation charge should be calculated after deducting investment grants, building grants or other capital grants. In the year of disposal of an asset, the relevant depreciation charge should be adjusted to take account of any profit or loss on disposal calculated by reference to the book value of the asset arrived at on the basis of 4(A)2(a). Amortisation of development expenditure carried forward should be treated as costs to be recovered under paragraph 9(b) of the Guidance Document at Annex 1.
 2. General stock losses and obsolescence, including provisions which cannot be charged directly either to Government or civil work, should be included in attributable overhead costs. This convention requires that the contractor's costing system must provide for the isolation of those stock losses which are directly attributable to civil contracts as well as those that are attributable to Government contracts.
 3. Reasonable redundancy payments in excess of the rates laid down by statute, made under the terms of a *bona fide* scheme, should be included in attributable costs.
2. It will be appreciated that it is not possible to produce an exhaustive list covering all the adjustments which may from time to time be required in computing overheads on non-competitive Government contracts. Nor is it possible to lay down absolutely fixed rules, given the varying circumstances prevailing within different organisations.

Capital Employed

3. For the purpose of computing a contractor's capital employed the aim will be to identify the most relevant unit of a contractor's business relative to the contract (e.g. subsidiary company, sub-group, division, geographical location etc.). If,

(C) Items treated as reducing overhead costs:—

1. Credits or refunds generally, in relation both to overhead items and also to direct cost items where the credit cannot be identified to a particular contract.
2. Industrial Training Grants.
3. Regional Employment Premiums.
4. Selective Employment Tax Refunds and Premiums and other selective incentives of a revenue nature such as removal grants and operational grants.
5. Shipbuilders' relief, which will however continue to be treated as a direct credit to the contract price.

(D) Other items dealt with specifically in the Report on the Interim Review by the Review Board for Government Contracts, dated 31st July, 1970:

1. The amount to be included for depreciation should be calculated at the contractor's own rates provided they are consistent, reasonable, and relate to the original cost of the assets. The depreciation charge should be calculated on the gross cost of assets before deducting investment grants, building grants or other capital grants. In the year of disposal of an asset, the relevant depreciation charge should be adjusted to take account of any profit or loss on disposal. (This new convention introduced by the Interim Report of the Review Board replaced the previous practice for Government contract pricing purposes whereby the depreciation charge was normally based on Inland Revenue capital allowances. The difference between the total written down value and the net book value of assets at the date of changing over to the new convention should be eliminated by an adjustment to the company's depreciation charge over a future period in accordance with a plan to be agreed between the contractor and the Government.)
2. General stock losses and obsolescence, including provisions which cannot be charged directly either to Government or civil work, should be included in attributable overhead costs. This convention requires that the contractor's costing system must provide for the isolation of those stock losses which are directly attributable to civil contracts as well as those that are attributable to Government contracts.
3. Reasonable redundancy payments in excess of the rates laid down by statute, made under the terms of a *bona fide* scheme, should be included in attributable costs.
3. It will be appreciated that it is not possible to produce an exhaustive list covering all the adjustments which may from time to time be required in computing overheads on non-competitive Government contracts. Nor is it possible to lay down absolutely fixed rules, given the varying circumstances prevailing within different organisations.

Capital Employed

4. It is unusual to find circumstances in which capital employed can be specifically related to a particular contract or to Government work in total. The usual practice, therefore, is to compute capital employed for a contractor's business as a whole, or

exceptionally, separate figures cannot reasonably be made available the capital employed is calculated for a contractor's business as a whole.

4. Provided no further adjustment has taken place in Group Accounts, a contractor's total capital employed is taken as the average of his total net assets as shown in the relevant balance sheets for the entity as described in convention 3 above for the period under review, adjusted for the following where relevant:

(A) Assets

1. Exclude:

- (a) Goodwill (an investment in aid of future profits) and preliminary expenses.
- (b) Adverse (debit) balance on profit and loss account.
- (c) Investments in shares and securities being capital not employed in the business.
- (d) Shares held in and permanent loans to subsidiary companies (trading balances are included in capital employed) being capital not employed in the business of the parent Company.
- (e) Cash demonstrably surplus to requirements (i.e. short term investments; deposits; and cash demonstrably in excess of the amount required for working cash resources for day to day operations).
- (f) Land and buildings not in occupation and plant and machinery demonstrably not in use where held for speculative purposes or for long term expansion not yet planned, or where there has been unreasonable delay in disposal of surplus assets.
- (g) Any additions to balance sheet values of assets arising from revaluation other than those specified at 4(A)2(a), 4(A)2(c) and 4(A)2(g).

2. Other adjustments (these may result in either an addition to or a deduction from balance sheet figures, according to the circumstances):

- (a) Adjustments in balance sheets to values of tangible or intangible fixed assets (other than goodwill) arising from revaluation may be included in capital employed, provided they are consistent and reasonable. Alternatively, and subject to the same proviso, the revised values of tangible and intangible fixed assets used in current cost accounts (or their successor) and included in audited financial statements, in accordance with a Statement of Standard Accounting Practice, or in an appropriately attested supplementary statement, may be substituted for statutory balance sheet values. Investment grants, building grants, other capital grants and depreciation are to be deducted from gross asset values for capital employed purposes whatever the basis of valuation used. Where intra-group charges fall to be considered under convention 1(B)5 it may be necessary to include an appropriate proportion of the value of the asset concerned.
- (b) The net balance sheet figure for stocks and work-in-progress is included in capital employed. If a company has not already done so in its balance sheets, cash on account of work-in-progress is deducted therefrom.

possibly for a section of a contractor's business to which the Government interest is confined and for which separate figures are available.

5. A contractor's total capital employed is taken as the average of his total net assets as shown in his balance sheets at the opening and closing of the period under review adjusted for the following where relevant:

(A) Assets

1. Exclude:

- (a) Goodwill (an investment in aid of future profits) and preliminary expenses.
- (b) Adverse (debit) balance on profit and loss account.
- (c) Investments in shares and securities being capital not employed in the business.
- (d) Shares held in and permanent loans to subsidiary companies (trading balances are included in capital employed) being capital not employed in the business of the parent Company.
- (e) Cash demonstrably surplus to requirements.
- (f) Land and buildings not in occupation and plant and machinery demonstrably not in use where held for speculative purposes or for long term expansion not yet planned, or where there has been unreasonable delay in disposal of surplus assets.
- (g) Any additions to balance sheet values of assets arising from revaluation.

2. Other adjustments (these may result in either an addition to or a deduction from balance sheet figures, according to the circumstances) and notes on treatment of items dealt with specifically in the Report on the Interim Review of 31st July, 1970:

- (a) Plant and buildings are included at original cost less depreciation at the contractor's own rates provided they are consistent and reasonable. Investment grants, building grants and other capital grants are not deducted. The transitional treatment of the difference between Inland Revenue written down values and book values will also affect this item (see 2(D) 1 above).
- (b) The net balance sheet figure for stocks and work-in-progress is included in capital employed. If a company has not already done so in its balance sheets, cash on account of work-in-progress is deducted therefrom.

- (c) Patents and trade marks may be included in capital employed to the extent that a company can demonstrate that they are 'live' and contribute to its earnings, although not shown in the company's balance sheet.
 - (d) Development expenditure — mainly on private venture work — may be included in capital employed up to the value shown in the balance sheet, 'net' of provisions, provided orders have been received, or are likely to be received, for the product under development, and there is a reasonable prospect, therefore, of recovery of development costs in the prices of those orders.
 - (e) Customers' deposits and prepayments in excess of the value of work-in-progress on the relevant order at any time are not deducted in the capital employed computation. Prepayments by the Government are deducted except where otherwise agreed.
 - (f) Certificates of tax deposit are included as capital employed, up to, but not exceeding, an estimate of two years' outstanding liability for tax.
 - (g) Where semi-capital items are written off to overheads, some spread over several years may be called for. Any amount not written off at a balance sheet date will be included as an asset in capital employed subject to any adjustment required to take account of the revaluation of fixed assets.
 - (h) The net balance sheet figure for debtors is included in capital employed, although occasionally balance sheet figures of debtors will be adjusted for increases or decreases becoming known after the balance sheet date, due to settlement of prices previously included at provisional figures.
- (B) Creditors and other general adjustments:
- (a) All loans which are interest-bearing are admissible as capital employed — i.e. not deducted from assets. On occasion a non-interest-bearing loan is encountered, and it is a matter of judgment as to whether or not this is deductible from assets.
 - (b) Share capital and any fixed interest loans such as debentures and specific bank (or other) loans, are usually averaged on the balance sheet figures unless any new items have been introduced during the year, when the date of such introduction is used to give a more precise average figure for that year. Short-term and fluctuating borrowed moneys such as bank overdrafts may be averaged by deducting the balance sheet figures as ordinary liabilities and substituting as an addition to capital employed the value of the capitalised interest paid during the year under review.
 - (c) Mainstream corporation tax falling due more than one year from the date of the balance sheet and deferred taxation are treated as capital employed; all other taxation provisions are treated as current liabilities. Liabilities to make payments in respect of group relief should be treated in the same way as tax liabilities.
 - (d) Launching aid is usually treated as a creditor in computing capital employed, and as such is deducted from launching costs as the equivalent of cash on account of work done.

- (c) Patents and trade marks are normally excluded. To the extent, however, that a company can demonstrate that patents and trade marks are 'live' and contribute to its earnings, some value may be included in capital employed, although not shown in the company's balance sheet.
- (d) Development expenditure — mainly on private venture work — may be included in capital employed up to the value shown in the balance sheet, 'net' of provisions, provided orders have been received, or are likely to be received, for the product under development, and there is a reasonable prospect, therefore, of recovery of development costs in the prices of those orders.
- (e) Customers' deposits — these deposits are usually paid over at the time the order is placed, and are therefore in advance of any production. They are deducted as cash on account of work-in-progress, but any balance in excess of the value of work-in-progress on the relevant order at any time is normally not deducted in the capital employed computation. All prepayments by H.M.G. are deducted.
- (f) Tax Reserve certificates are included as capital employed, up to, but not exceeding, an estimate of two years' outstanding liability for tax.
- (g) Where semi-capital items are written off to overheads, some spread over several years may be called for. Any amount not written off at a balance sheet date will be included as an asset in capital employed.
- (h) The net balance sheet figure for debtors is included in capital employed, although occasionally balance sheet figures of debtors will be raised for increases becoming known after the balance sheet date, due to settlement of prices previously included at provisional figures.

(B) Creditors and other general adjustments:

- (a) All loans which are interest-bearing are admissible as capital employed — i.e. not deducted from assets. On occasion a non-interest-bearing loan is encountered, and it is a matter of judgment as to whether or not this is deductible from assets.
- (b) Any fixed interest loans such as debentures and specific bank (or other) loans, are usually averaged on the two balance sheet figures unless any new items have been introduced during the year, when the date of such introduction is used to give a more precise average figure for that year. Short-term and fluctuating borrowed moneys such as bank overdrafts are averaged by deducting the balance sheet figures as ordinary liabilities and substituting as an addition to capital employed the value of the capitalised interest paid during the year under review.
- (c) The provision for corporation tax on profits of the year ended on the balance sheet date and the taxation equalisation account including that set up in respect of development expenditure are treated as capital employed; all other taxation provisions are treated as liabilities.
- (d) Launching aid is usually treated as a creditor in computing capital employed, and as such is deducted from work in progress as the equivalent of cash on account of work done. Varying circumstances may however call for judgment as to whether the whole amount should be so deducted.

- (e) Dividends declared are treated as creditors in computing capital employed, but proposed dividends are not so treated.
- (f) Provisions for expense items payable within one year from the date of the balance sheet are treated as creditors. Such provisions not expected to result in payments during the following year may be treated as capital employed.

Cost of Production

5. The cost of production should be computed for the same operating unit for which capital employed is computed. Inter alia, it should:

(A) Include:

- 1. Direct costs — direct wages, materials, bought out equipment, sub-contractors' and other direct charges.
- 2. Indirect costs — including overheads as well as all exclusions made in determining overheads attributable to Government work with the exceptions set out in 5(B) below.

(B) Exclude:

- 1. Capital expenditure.
- 2. The cost of raising and servicing loan capital.
- 3. Appropriation of profits, e.g. dividends, corporation tax.
- 4. Notional transactions.
- 5. Costs related to assets excluded from capital employed in accordance with 4(A)1 above.
- 6. Discounts allowed on sales, which are treated as abatements of selling prices.
- 7. Unnecessary, extravagant or wasteful outlays excluded from overheads under 1(A)10 above.
- 8. Loss of profits insurance premiums (profit element only).
- 9. Compensation payments of an abnormal nature to the extent that they are excluded under 1(B)1 above.
- 10. Lump sum additions to pension schemes to the extent that they are excluded under 1(B)2 above.
- 11. Subscriptions and donations of a political nature.

(C) Credits, grants or refunds dealt with under 1(C)1 above should be deducted from cost of production.

- (e) Dividends declared are treated as creditors in computing capital employed, but proposed dividends are not so treated.

(C) Government capital assistance.

In arriving at 'Government' capital employed, there is added to the contractor's figures one eighth of the value of Government-owned assets (usually plant, machinery or buildings) provided on loan to the company under capital assistance agreement(s).

6. The foregoing conventions aim to establish a definite set of guide lines, which have been formulated with a view to the acceptance, wherever possible, of a contractor's accounts figures in computing capital employed and cost of production. It will be observed, however, that the conventions recognise that the accounts figures for certain items may require some adjustment. There are no absolute and final figures for capital employed and cost of production which can be computed according to fixed and inviolable rules. Just as some items in company accounts are a matter of judgment and opinion as to the amount to be included so it is with capital employed and cost of production. Where, in such cases, there are no absolute rules, some judgment is called for.

6. The foregoing conventions, based on the conclusions of the Report on the Interim Review issued by the Review Board for Government Contracts on 31st July, 1970, and the Supplementary Report dated 29th June, 1971, establish a definite set of guide lines, which have been formulated with a view to the acceptance, wherever possible, of a contractor's balance sheet figures in computing capital employed. It will be observed, however, that the conventions recognise that the balance sheet figures for certain items may require some adjustment. There is no absolute and final figure for capital employed which can be computed according to fixed and inviolable rules. Just as some items in a balance sheet are a matter of judgment and opinion as to the amount to be included so it is with capital employed. Where, in such cases, there are no absolute rules, some judgment is called for.

APPENDIX D: ANNEX 1

PRIVATE VENTURE RESEARCH AND DEVELOPMENT EXPENDITURE RECOMMENDED REVISION OF THE GUIDANCE DOCUMENT

This text sets out the revisions which are recommended to the existing Guidance Document. Recommended deletions are identified within square brackets: recommended additions in the text are underlined.

[Background

1. Discussions have taken place between representatives of the Government and the Confederation of British Industry as suggested by the Review Board for Government Contracts in paragraph 30 of its Report on the Interim Review, dated 31st July 1970. The following terms of reference were adopted:—

“To consider the proposals in section 5.6 of the report of the Joint Government/ Industry Working Party on Overhead Costs, and to formulate principles and methods of operation in relation to the admission of private venture research and development costs to overheads which are acceptable as fair and reasonable by both parties.”

In view of the limited scope of the word “overheads” it has been necessary to widen the field of discussion to cover the overall treatment of private venture research and development expenditure in the pricing of Government non-competitive contracts, whether recoverable as overheads or in some other way.

2. In their general approach to this problem, the negotiating teams have taken into account the findings of the Working Party on Overhead Costs as set out in its report of September 1968. While remaining in substantial agreement with the principles enunciated in that report, the negotiating teams have found it necessary to introduce certain amendments for the purpose of clarification and to facilitate implementation. An attempt has also been made to resolve those areas of difference on which the original Working Party was unable to reach agreement.

3. The remainder of this paper records the agreement reached by the two teams.]

Definitions

4. As a first step in determining the principles for admission of expenditure for pricing purposes, it has been necessary to define certain expressions as precisely as possible. In particular, it has been considered essential to establish a line of demarcation between research on the one hand and development on the other. It is also important to distinguish development from production.

5. These definitions* are set out below:—

Private Venture Research and Development Expenditure

Expenditure which is not directly chargeable to the Government or any other customer under the terms of a specific contract.

Basic Research

That type of research which is directed towards increase of knowledge. In such research the primary aim of the investigation is a fuller knowledge or understanding of the subject under study rather than any practical application thereof.

Applied Research

That type of effort which normally follows basic research and which attempts:—

- (i) to determine and expand the potentialities of new scientific discoveries or improvements in technology, materials, processes, methods, devices and techniques; or
- (ii) generally to advance the state of the art.

Product Development

A systematic programme of work, going beyond basic and applied research, which is directed towards the creation of a new or improved product, system, component, or material substantially in a form in which it could be marketed, but excluding any manufacture beyond the completion of the prototype stage of the new or improved product.

Recording, Classification and Attribution of Expenditure

6. Contractors will classify in their accounting records all expenditure on research and development in accordance with the definitions in paragraph 5 above. The expenditure will include relevant indirect costs. Any such expenditure which is not in the nature of private venture as defined above is not considered further in this paper.

7. Private venture research and development expenditure will then be attributed as closely as possible to the product groups or, where this is realistic and appropriate, to the specific products which the expenditure is designed to benefit. Product groupings already established for his own purposes by a contractor will normally be adopted and will be disturbed only when this is clearly necessary to achieve a fair attribution of the expenditure.

8. The principles described in paragraphs 6 and 7 above will also apply to expenditure incurred by a contracting group at a central research and development establishment including those cases where this is operated by a separate company.

Recovery of Expenditure

9. When private venture research and development expenditure has been identified, classified and attributed in accordance with the foregoing rules, the following principles

* Work directed towards the creation of a new or improved product, system, component or material which is not substantially in a form in which it could be marketed is normally applied research.
Work directed towards the creation of a new or improved product, system, component or material which is substantially in a form in which it could be marketed is normally product development.
Work on a technology demonstrator, provided that it stops well short of the stage at which it could be marketed, is normally applied research.

for its recovery will, subject to the qualifications contained in paragraphs 10 to 16 below, normally apply:—

- (a) Basic and applied research which by their nature are not exclusively identified with individual products but are directed towards the benefit of a product group as a whole, will be regarded as costs to be recovered by charge to current total output of the product group. This will normally be effected by the admission in overheads of expenditure which is attributable to the product group to which such overheads are applicable. Alternatively, where it is more expedient and in accordance with sound accounting principles, the parties may agree to adopt some other basis of recovery having a broadly similar effect such as, for example, a charge per unit of output or a percentage charge to the costs of output.
- (b) In the case of product development, [which, by definition, refers to a specific product,] recovery will be by direct charge to the product concerned, or, where appropriate, a range of products making use of the development. Abortive product development expenditure admitted for recovery under paragraph 13 below will be recovered on the basis set out in paragraph 9(a).

10. It will be a condition of admitting private venture research and development expenditure for recovery on Government contracts (whether in overheads or otherwise) that the Department concerned be satisfied:—

- (a) having regard to all the circumstances, that the classification, allocation and apportionment of expenses adopted by the contractor is fair and reasonable; and
- (b) that any unreasonable, unnecessary, extravagant or wasteful expenditure is excluded.

Expenditure attributable to an agreement between [HMG] the contracting Department and a contractor which specifically limits the amount of the [Government's] Department's contribution will not, unless specifically provided for in the agreement, normally be recoverable through overheads on Government contracts.

11. The fact that a contractor may have adopted a particular accounting treatment for research and development expenditure in his financial accounts will not, in itself, prejudice the appropriate recovery of such expenditure on Government contracts.

Abortive Expenditure

12. Abortive research expenditure should be treated in the same way as any other research and be admitted for recovery on the principle described in paragraph 9(a) above.

13. Product development expenditure considered reasonable by the Department but which is abortive or is otherwise irrecoverable (for example, because of inadequate sales of the product concerned) will be admitted for recovery in Government non-competitive contracts [only to the extent that the Department is satisfied that it has derived or will derive significant benefit from the development and subject to] in accordance with the provisions of paragraphs 7, 9, 10 and 17 of this document.

Timing of Recovery

14. A further problem arises when, because of the long time span or fluctuating level of some research and development programmes, it becomes impossible to reach final decisions on the treatment for pricing purposes of certain expenditure at a time when, for example, it is necessary to settle an annual overhead rate negotiation or to fix production prices which will be subject to post-costing.

15. In such circumstances, it should be possible for an agreed amount of such "undecided" expenditure to be carried forward for decision as to recovery to be made in a future period.

16. If also carried forward in the financial accounts of the contractor, such expenditure will rank as capital employed for profit rate purposes. If, however, the expenditure is written-off, it will cease to rank as capital employed and the relevant costs should also be excluded from costs of production until the period in which the treatment of the expenditure is agreed.

Conclusion

17. It is considered that the arrangements stated above will in all normal circumstances result in the overhead rate or rates applicable for Government pricing purposes reflecting an appropriate share of private venture research and development expenditure. It is recognised, however, that there may be cases (for example, if the Department derives a significant benefit from product development expenditure which is abortive or otherwise irrecoverable or the contractor derives a disproportionate benefit from Government financed research and development) where an appropriate adjustment may be necessary to avoid a result which would be manifestly unfair either to the Department or to the contractor.

[Date of Operation

18. It is recommended that the arrangements stated above should come into effect for the purpose of calculating overhead rates for each contractor's financial year commencing after 30th June 1972, or where this is not practicable, commencing after 31st December, 1972.]

UNDERUTILISED ASSETS — SSAP 16 GUIDANCE NOTES

Paragraphs 28 to 31 are as follows:—

“Calculation of the recoverable amount

28. Management, as under HC (historical cost) accounting, may recognise that a permanent diminution in value has taken place and that a provision should be made by writing the asset down against profits immediately. This may happen, for example, when plant or machinery has become surplus to requirements, or its use is to be discontinued before the end of its normal life. In such circumstances, the value to the business will be the recoverable amount being lower than the net current replacement cost. It is emphasised that this is similar to the procedure that would apply under the historical cost convention.

29. There are commonly two situations which may arise. First, the asset is put out of use immediately and is sold or scrapped. The recoverable amount is then the current realisable amount net of realisation expenses. Second, the asset continues in use for a period. Then, as in HC accounting, the recoverable amount is the total estimated amount which can be recovered from its use, normally calculated by reference to the estimated cash flows arising from its future use and its ultimate disposal. Such amounts should be calculated net of any realisation expenses and at price levels current at the date of the accounts, not at estimated future price levels. As in HC accounts it is not usual to discount the future cash flows. The difference between the recoverable amount and the net current replacement cost is taken to profit and loss account.

30. Subsequently, the recoverable amount is written off over the remaining period of use. If price levels change from those existing at the date of the original calculation, the remaining recoverable amount is adjusted by transfer to or from the current cost reserve. Changes for other reasons should be taken to the profit and loss account.

31. It is appropriate to raise asset values (and therefore depreciation) in line with rises in costs even if a company's business is declining or at present unprofitable. This is so until such time as a permanent diminution in value below current replacement cost is recognised so that assets have to be reduced to their recoverable amount. On the commencement of CCA such a reduction should be debited to the current cost reserve on the grounds that it accrued over previous periods of account and subsequently the normal rules mentioned above apply.”

APPENDIX E

SUMMARY OF THE REVIEW BOARD'S ACTIVITIES 1969-83

Profit Formula Reviews

1. The Board has previously produced five reports as follows:—
 - (a) a report in July 1970 on the Interim Review, dealing with certain specific issues relating to the profit formula and the Accounting Conventions;
 - (b) a report in June 1971 supplementary to the foregoing and dealing with marketing and selling expenses;
 - (c) a report in October 1974 on the first General Review of the profit formula, which examined the operation of the formula during the period 1969-71;
 - (d) a report in July 1977 on the second General Review of the profit formula, which examined the operation of the formula during the period 1972-74;
 - (e) a report in August 1980 on the third General Review of the profit formula, which examined the operation of the formula during the period 1975-78.
2. The Board's recommendations in relation to adjustment of the target rate of return have been as follows:—
 - (a) The 1970 Report increased the target rate to 14.3 per cent on capital employed, as compared with the 13.3 per cent figure established in 1968 by the Profit Formula Agreement.
 - (b) The 1974 Report recommended a further increase in the target rate to 20 per cent on capital employed; this recommendation was not fully implemented, it being subsequently agreed between the Government and the C.B.I. that the target rate be increased to 18 per cent as from February 1975.
 - (c) The 1977 Report recommended that the target rate be raised to 20 per cent from the rate of 18 per cent which had been agreed following our 1974 Report; this recommendation was accepted and became operative as from October 1977.
 - (d) The 1980 Report recommended that there should be no change in the target rate fixed following our 1977 Report; the contractors did not accept this recommendation but, in default of agreement, the pre-existing 20 per cent target rate (estimated to yield, on average, a return of 23 per cent in respect of risk work and a return of 16 per cent on non-risk work) has remained in force.
3. The recommendations made by the Board in its 1980 Report were essentially in the nature of a holding operation. As was made clear in paragraph 28 of that Report, it was then anticipated that it would be possible to inject inflation accounting into the pricing of Government contracts before the time came for the Board to conduct its next triennial review. That expectation was not fulfilled. There is still no general consensus on inflation accounting. The result is that the target rate recommended in the 1980 Report, which was expected to be reviewed within the normal three year period, has in the event remained operative for more than three years.
4. It was agreed, at the commencement of each of the Board's three previous General Reviews, that the Board should not confine itself to the purely statistical function of compiling data on the profitability of Government contractors and British industry in general and reporting the conclusions that emerged therefrom. The Board adopted a

comprehensive approach to the General Reviews, receiving submissions from the Government and the contractors on a wide range of issues related to the profit formula and the pricing arrangements for non-competitive Government contracts.

5. The Board has made various recommendations (all of which have been adopted) by way of up-dating the structure of the formula to take account of such factors as shifts in the proportion of risk to non-risk work.

Adjustments have also been made to the trigger points for reference of individual contracts to the Board.

6. The Board has over the years taken the initiative in encouraging the establishment of joint working parties to tackle problems which emerged in various areas. The results have in the main been encouraging.

References of Individual Contracts

7. During the years 1969-83 a total of six contracts were submitted for adjudication by the Board under the jurisdiction with which it is invested by the 1968 Memorandum of Agreement. Each of these cases is summarised, as required by paragraph 22 (b) of the 1968 Memorandum of Agreement, in the Board's Annual Reports.

8. Of these six cases, two were initiated by the contractor. In one case the contractor's claim was upheld, although not in the full amount claimed. In the other case, the contractor's claim was rejected. In three of the four cases initiated by the Government, refunds were directed to be made by the contractor; the Government's claim was rejected in the fourth case.

9. A seventh case was dealt with by the Board at the joint request of the parties notwithstanding that it lay outside the ordinary jurisdiction of the Board. The parties wished confidentiality to be preserved and it was decided that publication of the decision, even in summary form, would be likely to result in loss of confidentiality.

10. It is the exception rather than the rule for contracts to be referred to the Board. Reference to the Board is normally reserved to those cases in which settlement negotiations break down upon what one side or the other regards as a question of principle. The Board then endeavours to give its decision in such a way as to afford guidance for the future.

11. It needs to be emphasised that the small number of individual cases referred to the Board by no means reflects the incidence of dispute. The great majority of cases are settled by a process of negotiation and, as we have indicated in the past, we regard this as an entirely healthy state of affairs.

It is also worth recording that disputes which are referred to the Board are heard with a minimum of formality and with the maximum possible expedition. The parties are encouraged to present their own submissions at the oral hearing and, to date, no oral hearing has occupied more than one day.

12. A recent proposed reference to the Board was objected to by the MOD on the ground that the issue sought to be raised was outside the Board's jurisdiction. This jurisdictional question was made the subject of a preliminary issue which was heard by one member of the Board. After an exchange of written submissions and an oral hearing, he decided that the MOD objection was well-founded and that it should be upheld. The reasons for the decision were communicated in writing to the parties.

APPENDIX F

COST REDUCTION SCHEMES

An Agreed Paper produced by a Joint Working Party comprising Representatives of the Government and J.R.B.A.C.

1. Following their submissions to the Review Board for Government Contracts, the Government (represented by the Ministry of Defence and the Treasury) and Industry (represented by the Joint Review Board Advisory Committee) have reached agreement on a framework for encouraging additional improvements in efficiency designed to achieve reductions in acquisition and other costs.

2. Criteria

- i. Cost Reduction Schemes (CRS) will be initiated by the contractor in the form of proposals for consideration by the Ministry of Defence (MOD).
- ii. CRS must represent measures over and above those which a company could reasonably be expected to pursue on its own account in search of increased efficiency.
- iii. Application will be on the basis of schemes. Some schemes may be unique to one contract; others may benefit more than one contract on each of which the effect of the scheme will be assessed, or assessed annually in the case of contracts priced by reference to annual price lists.
- iv. Schemes must be self funding and commercially viable.
- v. The expected savings must be capable of being demonstrated to the Ministry's reasonable satisfaction. This means that there must be a clearly defined starting point in the form of an agreed contract price and the cost reductions attributable to the improvements in performance arising from the scheme must be quantifiable. Schemes apply normally to work priced on a risk basis. Schemes applying only to non-risk work will not be considered.
- vi. The savings achieved under an agreed scheme will be shared between the contractor and MOD. The appropriate sharing and method of sharing will be determined by agreement between the relevant MOD purchasing branch and the contractor and will take account of any benefits to the contractor on contracts already priced.
- vii. The relevant contracts will be priced in a timely manner.
- viii. Post costing of the contract or contracts, where required, will take place in the normal way.
- ix. The CRS concept will be operated initially for a trial period of three years during which experience of operating the scheme will be assessed. Schemes falling within this period will be confined normally to individual contracts, or groups of contracts, exceeding £5m in value.

3. Contractors' Proposals

- i. The contractor will submit his CRS proposals as a total package (including sub-contracts as appropriate) to the MOD purchasing branch identifying the articles, contract(s) or the annual pricing arrangements affected and will discuss and agree with the Ministry all aspects of the proposed scheme. Arrangements

proposed for assessing the benefits of the scheme will be an important feature.

- ii. The proposals should include the contractor's assessment of the effects of the proposal on:—
 - (a) Indirect costs.
 - (b) Direct costs.
 - (c) Ownership costs.

Selective and specific arrangements, outside the CRS arrangements, shall continue to be the subject of incentive schemes embracing reliability, maintainability and availability.

4. Operation of CRS

- i. Schemes agreed by MOD will be dealt with on the basis of the contract or contracts on which they will have an effect. A scheme may affect contracts already placed but not yet priced, and also downstream contracts not placed at the time the CRS is accepted for implementation.
- ii. An agreed CRS, embodying the sharing arrangements will be attached as an addendum to the earliest placed contract to which it relates. Subsequent relevant contracts may also need to invoke the addendum.
- iii. Once the achieved level of savings has been established, the contractor's agreed share may be incorporated in the prices of relevant subsequent contracts.
- iv. If the contractor demonstrates, and the Ministry agrees, that no savings were achieved on the first contract to which the scheme applies, then the Ministry will not seek its share of any pre-estimated savings on the first contract. In this event the Ministry will consider with the contractor what continuing arrangements, if any, should apply.

5. Costs

The cost of preparing and implementing a CRS (other than capital expenditure — which will rank for inclusion in capital employed) will be chargeable to general overheads. The cost of implementation will be identified. The agreed arrangements for a particular scheme may override the Accounting Conventions.